

GLEESON MANAGED FILL LIMITED

(Applications to undertake overburden and managed fill works (both WRC and WDC consents) at an existing quarry site.)

Both at Riverview Road, Huntly

Hearing: Tuesday 6 December 2022 commencing at 10.00am, and will continue on through Thursday 8 December 2022, as and if necessary to complete the hearing. The venue is the War Memorial Hall, Wight Street, Huntly.

Waikato District Council Private Bag 544 Ngaruawahia 3742	Waikato Regional Council Private Bag 3038 Waikato Mail Centre Hamilton 3240
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November 2022

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**WAIKATO REGIONAL COUNCIL
and
WAIKATO DISTRICT COUNCIL**

Report on: Gleeson Managed fill Limited

To: Waikato Regional Council and Waikato District
Council Joint Hearing Committee

1	CONSTITUTION The hearing has been established in accordance with the provisions of the Resource Management Act 1991.																			
2	PROCEEDINGS OF HEARING Attached as a separate item.																			
3	<p>APPLICATIONS</p> <p>Waikato Regional Council APP144475 Activities are as follows:</p> <table border="1"> <thead> <tr> <th style="text-align: left;">Reference ID</th> <th style="text-align: left;">Activity Description</th> </tr> </thead> <tbody> <tr> <td>Activity 1 144475.01.01</td> <td>Earthworks and vegetation clearance within high risk erosion areas associated with the overburden, cleanfill and managed fill disposal areas 2, 3 and 4 and ancillary activities.</td> </tr> <tr> <td>Activity 2 144475.02.01</td> <td>To discharge overburden to Land at Fill Areas 2, 3 and 4.</td> </tr> <tr> <td>Activity 3 144475.03.01</td> <td>To discharge Cleanfill and Managed Fill to Land at Fill Areas 2, 3 and 4.</td> </tr> <tr> <td>Activity 4 144475.04.01</td> <td>To discharge stormwater and treated water in association with Fill Areas 2, 3 and 4.</td> </tr> <tr> <td>Activity 5 144475.05.01</td> <td>To take and divert groundwater and divert stormwater all in association with Fill Areas 2, 3 and 4.</td> </tr> <tr> <td>Activity 6 144475.06.01</td> <td>To undertake stream diversions, reclamation or streams and associated bed disturbance in association with filling areas 2, 3 and 4.</td> </tr> <tr> <td>Activity 7 144475.07.01</td> <td>To discharge treated stormwater to land and/or water within 100 meters of a natural wetland.</td> </tr> </tbody> </table> <p>Waikato District Council Activities are as follows:</p> <table border="1"> <thead> <tr> <th style="text-align: left;">Reference ID</th> <th style="text-align: left;">Activity Description</th> </tr> </thead> <tbody> </tbody> </table>		Reference ID	Activity Description	Activity 1 144475.01.01	Earthworks and vegetation clearance within high risk erosion areas associated with the overburden, cleanfill and managed fill disposal areas 2, 3 and 4 and ancillary activities.	Activity 2 144475.02.01	To discharge overburden to Land at Fill Areas 2, 3 and 4.	Activity 3 144475.03.01	To discharge Cleanfill and Managed Fill to Land at Fill Areas 2, 3 and 4.	Activity 4 144475.04.01	To discharge stormwater and treated water in association with Fill Areas 2, 3 and 4.	Activity 5 144475.05.01	To take and divert groundwater and divert stormwater all in association with Fill Areas 2, 3 and 4.	Activity 6 144475.06.01	To undertake stream diversions, reclamation or streams and associated bed disturbance in association with filling areas 2, 3 and 4.	Activity 7 144475.07.01	To discharge treated stormwater to land and/or water within 100 meters of a natural wetland.	Reference ID	Activity Description
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	LUC0488/22	To establish and operate a managed fill disposal activity that imports material to deposit within identified gullies (fill areas 2-4) located north of an existing quarry within the same site.	
		To undertake soil disturbance of a piece of land (within fill area 3) as per the national environmental standard for assessing and managing contaminants in soil to protect human health.	
All in the vicinity of Riverview Road, Huntly.			
4	NOTIFICATION The applications were publicly notified in the Waikato Times and the Te Kauwhata Chatter.		
5	SUBMISSIONS 5.1 Waikato Regional Council and Waikato District Council As per s42A report: 35 submissions received by Waikato Regional Council and Waikato District Council were from the same parties, 1 of those was neutral, the remaining 34 were in opposition. Waikato District Council received 1 submission in opposition from a further party, Waikato Regional Council received a further 6 submissions, all in opposition. Making a total of 42 submissions.		

Gleeson Managed Fill Limited

Consent Authorities	Waikato Regional Council Att: Emma Cowan Private Bag 3038 Waikato Mail Centre Hamilton 3240
	Waikato District Council Att: Wade Hill Private Bag 544 Ngaruawahia 3742
Applicant	Gleeson Managed Fill Limited PO Box 97034, Manukau City, Auckland 2241 C/- Kate Madsen kate@pauaplanning.co.nz
Submitters- Neutral (Same to Both Councils)	Transpower NZ Ltd PO Box 21154 Edgeware Christchurch 8143 Att: Andy Eccles
Submitters- Opposing (Same to Both Councils)	Arthur & Esmee Baylis 92A Hakanoa Street Huntly 3700
Hine Lavinia & Donald Carmichael 45 Rotowaro Road Huntly 3700	Garry & Audrey Cox 96 Riverview Road Huntly 3700
Department Of Conservation C/- M Brass PO Box 544 Dunedin	Andrea Dickinson 38 William Street Huntly 3700
Warren Dickinson 38 William Street Huntly 3700	Colleen Earby 58 Kimihia Road Huntly 3700
Gaylene Aroha Himona 26 Hakanoa Street Huntly 3700	Robert Hunt 319B Rotowaro Road Huntly 3771
David Whyte - on behalf of Huntly Community Board 38 Ohinewai North Road RD 1 Huntly 3771	Appollonia Johnston 24 Parker Road Huntly 3771

Alan & Bronwyn Kosoof 120 Kimihia Road Huntly 3700	Denise Phyllis Lamb 60 Riverside Way RD 1 Huntly 3771
Nicola Anne Maplesden nicola.maplesden@gmail.com	Melissa McDonald 166 Riverview Road Huntly 3700
Dorothy Claire Molloy 7 Hillside Heights Rd RD 1 Huntly 3771	Jennifer Lee Molloy 319B Rotowaro Road RD 1 Huntly 3771
Nola Dawn Morland 18 Hillside Heights Road RD 1 Huntly 3771	Bryce & Carla Mounsey 855D Hakarimata Road RD 1 Huntly 3771
Lorrel & Alex Mowles 130 Riverview Road Huntly 3700	Leanne Ralph & Andrew Parkin 2 Perry Lane Huntly 3171
Anthony Ernest Perkins 125 Kimihia Road Huntly	Jessica Rix 27 Hakanoa Street Huntly 3700
Maree Frances Rutherford 219B Rotowaro Road RD 1 Huntly 3771	Wayne Robert Rutherford 219B Rotowaro Road RD 1 Huntly 3771
Seli Salararaba Scutts 206 Riverview Road Huntly 3700	Kathie Shepard 927 Hakarimata Road RD 1 Huntly 3771
Te Kauri Marae Trust 163 Hetherington Road Huntly 3772	Daisy Kate Thomas 95A Hillside Heights Road RD 1 Huntly 3771
Emily Joy Thomas 42B Mahutastation Drive Huntly 3771	Nicola Vitasovich 90 Hillside Heights Road RD 1 Huntly 3771
Paul Vitasovich 90 Hillside Heights Road RD 1 Huntly 3771	Tiffany Whyte PO Box 234 Huntly 3740
Kevin Wickens 184 Riverview Road Huntly 3700	
Submitters- Opposing Waikato Regional Council only	Norman Hill & Hill Whaanau C/- Te Hira Consultant Ltd 38 Galloway Street Hamilton 3216
Clive & Pauline Kosoof 122 Kimihia Road Huntly 3700	Shirley McDonald 164B Riverview Road RD 1 Huntly 3700
Cyril & Marion Shanley PO Box 68 Huntly 3740	Kate & Philip Thomas farmerphildrake@gmail.com

Waikato District Council Att: Gavin Ion Private Bag 544 Ngaruawahia 3742	
Submitters- Opposing Waikato District Council only	Freeway Design Limited Att: Kitt Littlejohn Quay Chambers Level 7 2 Commerce Street Auckland 1010

JOINT HEARING**WAIKATO REGIONAL COUNCIL
And
WAIKATO DISTRICT COUNCIL****RESOURCE MANAGEMENT ACT 1991****Hearing Format**

- 1 The Chairperson will declare the hearing open.
- 2 The Chairperson will request the Hearing Administrator to call the application/s.
- 3 All parties present will be requested to identify themselves, stating their interest in the case. Appearances - names of applicant, submitter(s) (for and/or against) and respective Counsel will be recorded.
- 4 The Chairperson will address any particular procedural and other matters that require clarification.
- 5 Applicant(s) (or their representative/s) to present the application/s and call witnesses.
- 6 Submitter(s) (or their representative/s) in support of the application/s to present their submission and call witnesses.
- 7 Submitter(s) (or their representative/s) in opposition to the application/s to present their submission and call witnesses.
- 8 Waikato Regional Council / Waikato District Council -Staff Technical Reports
- 9 Applicant's right of reply
- 10 Closure (or in some circumstances adjournment) of the hearing.

Rules of Procedure

- 1 The Chairperson may require a witness to give his/her evidence (or a particular part of his/her evidence) on oath.
- 2 The applicant and parties making submissions may be represented by legal counsel or other authorised representative/s.
- 3 If any person intends to give written or spoken evidence in Maori during the hearing, the Hearing Administrator must be informed of this at least five (5) working days before the hearing so that a qualified interpreter can be provided. Alternatively, an interpretation may be provided with the evidence by the person giving the evidence.

- 4 The Chairperson or any member of the hearing body may address questions to any of the parties (staff, applicant, submitter(s), or their respective witnesses or representative/s) at any stage of the hearing.
- 5 Cross-examination of witnesses is not permitted. At the conclusion of the evidence of a witness, other parties may seek clarification of particular points in that evidence. But it is at the Chairperson's discretion as to whether or not a question is put to the witness. The Chairperson may require a person seeking clarification to submit a proposed question in writing.
- 6 Any person giving evidence may be recalled as and when considered necessary and/or appropriate by the Chairperson.
- 7 The Chairperson may, if it is considered that there is likely to be excessive repetition, limit the circumstances in which parties who have the same interest or stance on an issue may speak or call evidence in support.
- 8 The applicant's right of reply must be confined to matters arising out of the evidence or any legal points which require clarification. No new evidence may be introduced at this stage.
- 9 If new or further information or technical evidence is introduced for the first time at the hearing, then the Chairperson may adjourn the hearing to allow circulation of the new material to all parties. Time will be allowed for the parties to access the new or further information or technical evidence prior to the hearing being reconvened.
- 10 If the hearing members decide that there is insufficient information available for them to reach a decision on the application, then the Chairperson may adjourn the hearing pending receipt of the further information required. Once received, this additional information will be pre-circulated to all of the parties involved in the hearing prior to the hearing being reconvened.
- 11 The Chairperson declares the hearing closed once all parties have presented their evidence and the hearing panel has no further questions, and taking into account numbers 9 and 10 above if applicable. The panel then decides whether to deliberate in public or private.
- 12 Copies of all technical evidence and written statements to be presented at the hearing by the parties are to be pre-circulated to:
 - the consent authority, Waikato Regional Council / Waikato District Council, and
 - the other partiesin accordance with the instructions set out in the Notice of Hearing letter.

This is essential to ensure that the parties involved in the hearing have all the evidence necessary to be fully informed about the proposal and the relevant issues/concerns. This will greatly assist the Hearing Committee in its task and prevent unnecessary delays in the process.
- 13 All hearings will be held in public except where the hearing body determines that the public should be excluded pursuant to Section 42 of the Resource Management Act which relates to the protection of sensitive information.
- 14 Should any party wish to use equipment such as overhead projectors, slide projectors or video replay facilities to present evidence, please contact the Hearing Administrator (at least five (5) working days before the hearing) who may be able to assist in co-ordinating the availability of and/or access to such equipment.

Waikato Regional Council - S42A Report

To: Hearing Commissioners
Date: 13 November 2022
From: Emma Cowan

Executive Summary

Report on a resource consent application made by Gleeson Managed Fill Limited, application reference APP144475 (WRC doc # 23785826 & 24411914), lodged on 14 April 2022. The application is to establish and operate Managed Fill disposal sites in gullies referred to as Fill Areas 2, 3 and 4. Fill Areas 2 – 4 are proposed to receive overburden from the quarry on the same site and imported cleanfill, managed fill and construction and demolition materials. Site preparation will include the drainage of wetland areas, earthworks and the construction of stormwater treatment ponds.

The activities for which resource consents are sought are listed in Table 1 as follows.

Table 1: Consents Sought

Activity	Description
APP144475.01.01	Earthworks and vegetation clearance within high risk erosion areas associated with the overburden, cleanfill and managed fill disposal Areas 2, 3 and 4 and ancillary activities.
APP144475.02.01	To discharge overburden to land at Fill Areas 2, 3 and 4
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APP144475.07.01	To discharge treated stormwater to land and/or water within 100 metres of a natural wetland

The applicant has requested 35 year consent terms be applied to all the consents sought.

This report assesses the application, the potential effects of the application and the relevant provisions in the Resource Management Act 1991 and the Waikato Regional Council policies and plans. The report recommends whether the consent should be granted for the activity. The notification decision report is WRC document number 24130625.

Qualifications and Experience

My name is Emma Cowan I hold a certificate for successful completion of the WSP OPUS Training, Assessment and Certification Programme for Resource Management Act Decision Makers (Making Good Decisions); a Master of Environmental Management with Merit from Massey University, a BSc (Zoology) from the University of Otago; and a Graduate Diploma (Teaching) from Victoria University.

For over 6 years I have been employed by the Waikato Regional Council (WRC) as a Consents Officer. Processing resource consent applications and monitoring compliance with resource consents, primarily within the areas of earthworks, expressway construction, quarries, mines, cleanfill and managed fill operations.

My work background over the past 20 years has been within natural resource management, conservation biology and education fields. The previous 12 years being employed within local government roles in resource consenting and monitoring.

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Appendices

1. Summary of Submissions
2. Geotechnical Peer Review - Huntly Quarry 2022 Managed Fill Application, prepared by Baseline Geotechnical, dated 7 June 2022.
3. Managed Fill Discharges Peer Review - Technical Assessment of contaminant discharges to land and water – Gleeson’s Managed Fill, updated 14 November 2022, prepared by Dr Jonathan Caldwell, Senior Scientist for the WRC.
4. Ecology Peer Review - Letter titled ‘Re: Gleeson and Cox Fill Consent Application: Wetland Ecological Effects’, prepared by Karen Denyer, Principal Ecologist, Papawera Geological Consulting, dated 31 October 2022.
5. Air Discharge Peer Review - *Technical Assessment of Air Discharges, Gleeson’s Managed Fill*, dated 9 August 2022, prepared by Dr Jonathan Caldwell, Senior Scientist for the WRC.
6. Groundwater Peer Review - Technical Review of Groundwater Effects, dated 10 June 2022, prepared by Tim Baker, SLR.
7. Erosion and Sediment Control AEE Review, dated 30 June 2022, prepared by Joshua Evans, Resource Officer for the WRC.
8. Recommended Conditions of Consent

1. Background

Paua Consultants Limited, has on behalf of Gleasons Managed Fill Limited (GMF), applied for a suite of resource consents associated with the disposal of managed fill for three sites (herein referred to as Fill Areas 2-4) on land associated with, and known as, the Huntly Quarry.

Gleeson Group purchased the Stevenson's Huntly Quarry in 2018. The site is located south of the main Huntly township on the western side of the Waikato River approximately 3km south of the Tainui Bridge roundabout. The site is located at 310 Riverview Road, Huntly. The site is identified on Figure 1 below.



Figure 1: Location Plan showing the general locations of proposed Fill Areas 2 - 4, the ecological compensation area and the quarry.

The site currently accommodates an open aggregate quarry and associated activities e.g. an authorised fill area (known as Fill Area 5) where the disposal of overburden from the quarry is placed. These activities are all authorised via existing resource consents held with both the Regional and District Council. Of note is that some of these consents expired in July 2020. An application to replace these consents was made to the Waikato Regional Council (WRC) in April 2020. That application is being processed concurrent to this application and is currently on hold awaiting further information.

The quarry site is held in multiple Titles, equating to approximately 596ha of land with the active quarry operation covering approximately 61ha (including Fill Area 5).

Prior to this application that is before the Hearing Committee, the applicant has previously applied for consent for managed fill activities for the same site. In summary, these were:

1. An application was made in November 2019 for a new managed fill for fill areas 2-4 (similar to what is now proposed); and

2. A change was made to the 2019 application removing fill sites 2 and 4 from the application; and
3. The changed application was subsequently withdrawn in September 2020.

The wider site consists of active and retired farmland; harvested plantation forestry areas which are in mixed vegetation and gorse (including Fill Area 2); and a historic coal tailings dump located at Fill Area 3. The historic coal tailings dump would require land disturbance earthworks and subsoil drainage in preparation for the proposed managed fill disposal activities. Environmental controls for the historic coal tailings dump and the associated contaminants is discussed in the managed fill AEE, Section 6.1 of this report.

The application and assessment of environmental effects (AEE) has been prepared by Paua Planning on behalf of GMF, as the Applicant, and is supported by a number of technical reports.

1.1 The Site and Existing Consents

As demonstrated in Figure 1, the GMF site is located at 310 Riverview Road, Huntly.

Landform, geology, vegetation and ecology is described in the applicant's AEE. In summary, the fill areas are sited within a series of gullies and ridges, rising to a height of 100m above sea level, with the lowest point being 50m above sea level. The geology consists of greywacke rocks of the Hakarimata Formation. The vegetation includes pasture and weed species, dispersed with native and exotic vegetation that tend to cluster in the existing valleys and adjacent to overland flow paths and small streams. The site contains potential habitat for native skinks, with the wetland habitat providing value for native birds and the broadleaf forest/exotic forest and wetlands providing potential habitat for bats.

Proposed Fill Areas 2-4 are contained within Titles SA656/223, SA149/243 and SA922/109¹ with a collective size of 91ha. The quarry itself is contained within the Titles to the south of Fill Areas 2 and 4 and within Titles SA200/119, SA29C/651 and SA922/100.

1.2 The Proposal

The proposal is to allow the placement of approximately 2 Million cubic metres of managed fill within three separate fill areas. The following table provides a breakdown of the size and capacity of each of the fill areas, with **Figure 2** providing an overview of the fill area locations relative to the working pit. **Figure 3** also demonstrates how access from the pit to the fill areas is proposed.

Fill Area	Size (ha)	Projected Fill Volume (m ³)
2	3.8	632,600
3	4.2	576,600
4	5.1	800,000
Total	13.1	2,009,200

Specific site descriptions for each of the fill areas is as follows:

Fill Area 2 (FA2):

- Located north-west of the existing quarry and is a naturally closed valley with a west facing gully.
- The gully is effectively a steep amphitheatre which rises to the east and lowers to the west.
- There is an existing small ponding and wetland area at the base of the gully which eventually flows into an existing stream catchment.

Fill Area 3 (FA3):

- Located further north-west of FA2, towards the northern boundary of the Gleeson landholdings.

¹ SA149/243 and SA922/109 cover the same land area.

- FA3 is adjacent to the old O'Reilys coal mine and has been rehabilitated as generally flat pasture.
- FA3 is separated from FA2 by a natural hill slope.
- Vegetation includes pasture, gorse and a wetland.

Fill Area 4 (FA4):

- Located immediately north of existing quarry operations and to the east of FA2 and FA3.
- FA4 is a natural gully that runs south towards the north.
- The area is predominantly exotic species, pine trees, gorse and a wetland and ponding area in the lower portions.

The applicant's AEE detail the proposed characteristics of the managed fill material to be deposited at the site and provides details regarding the operations and management of the fill operation, staging, site access and water management and treatment (i.e. erosion and sediment control measures). In summary:

- The acceptance criteria (i.e. the characteristics of the fill material to be accepted) is set out in Appendix 10 of the application and the AEE, prepared by Andrew Rumsby, EHS-Support. The fill material is also proposed to consist of construction and demolition (C&D) fill, which will include soil, rock concrete, bricks and inert C&D material. Inert C&D will mostly include glass and rock fibres and less than 5% timber. Soil and C&D can contain minor amounts of electrical wiring, plastics and plasterboard as an acceptable material (less than 0.5% of the waste matrix). Asbestos containing soil and material, peat, marine sediment, and acid sulphate soils.
- The management of the fill operation will be in accordance with an approved Site and Fill Management Plan (SFMP). A draft of this SFMP has been submitted in support of the application and will be revised in accordance with consent conditions as necessary. The SFMP details matters such as how approval of the fill material will occur prior to disposal, on-site processes and customer pre-approval processes.
- Only one stage will be worked at any one time, commencing with FA2.
- Access to the fill areas will be through the quarry site and up a new access that is to be constructed on the northern side of the pit.
- Erosion and sediment controls will be established and managed as set out in the draft ESCP submitted in support of the application.

2 Status of Activities under the Plan and National Environmental Standards for Freshwater (NESF)

The consent activities applied for are regulated through the Waikato Regional Plan (WRP) and the National Environmental Standards for Freshwater (NESF). The WRP became operative on 28 September 2007 to NESF took effect on 3 September 2020. The status of the activities under the WRP and NESF are described below:

Activity	Description	Activity Status and WRP Rule
APP144475.01.01	Earthworks and vegetation clearance within high risk erosion areas associated with the overburden, cleanfill and managed fill disposal Areas 2, 3 and 4 and ancillary activities.	Discretionary Activity Rule 5.1.4.15 – Soil disturbance, roading, tracking, vegetation clearance, riparian vegetation clearance in high risk erosion areas 3.7.4.7 – Drainage of Wetlands
APP144475.02.01	To discharge overburden to land at Fill Areas 2, 3 and 4	Discretionary Activity Rule 5.2.5.3 – Large scale overburden disposal
APP144475.03.01	To discharge Cleanfill and Managed Fill to Land at Fill Areas 2, 3 and 4	Non-Complying Activity & Discretionary Activity 3.5.4.6 – Non-Complying Activity Rule – Discharges into other Water Bodies (Discharge of contaminants into wetlands) Rule 3.5.4.5 – Discharges – General Rule
APP144475.04.01	To discharge stormwater and treated water in association with Fill Areas 2, 3 and 4.	Discretionary Activity Rules 3.5.11.8 – Discharge of stormwater and 3.5.4.5 – Discharges – General Rule
APP144475.05.01	To take and divert groundwater and divert stormwater all in association with Fill Areas 2, 3 and 4	Discretionary Activity Rules 3.6.4.13, 3.6.4.14 – New dams/damming of water and
APP144475.06.01	To undertake stream diversions, reclamation of streams and associated bed disturbance in association with filling Areas 2, 3 and 4.	Discretionary Activity 4.3.4.4 – Bed disturbance activities NESF Regulation 57 – Reclamation of rivers (Discretionary Activity Status)
APP144475.07.01	To discharge treated stormwater to land and/or water within 100 metres of a natural wetland	Non-Complying Activity NESF Regulation 54

The proposed managed fill discharge activity is a discretionary activity under rule 3.5.4.5, as the activity is not specifically provided for by any rule, and does not meet the conditions of a permitted or a controlled activity rule in the Plan. The managed fill activity includes the discharge of treated stormwater within 100m of a natural wetland, this activity has been assessed as a non-complying activity under Regulation 54 of the National Environmental Standards for Freshwater. The other consents sought are supplementary to the main managed fill and stormwater discharge activities.

For the purposes of decision making the application has been bundled and assessed as a non-complying activity (refer to section 6.2.4 of this report) and is therefore determined in accordance with section 104 and 104D of the RMA.

3 Process Matters

The resource consent application was received on the 14 April 2022 and accepted on 3 May 2022. The application was placed on hold under s92(1) RMA on 15 June 2022 awaiting response to a further information request, the application was taken off hold on 15 July 2022 and publicly notified on 20 July 2022.

Date	Process Detail
14/04/2022	Lodged
22/04/2022	Active
04/05/2022	Extension of timeframe (S.37), 20 days
15/06/2022	On Hold s92(1)
7/7/2022	Notification Decision made, Public Notification as requested by applicant.
15/07/2022	Updated AEE received and new application made under NESF, Off Hold applicant has advised no further response to s92(1) will be forthcoming
20/07/2022	Application Publicly Notified

4 Consultation Prior to Notification

The WRC has not undertaken direct consultation. The applicant has set out the consultation which was undertaken prior to notification in section 18 and 20 of the AEE. The applicant requested public notification of the application.

5 Notification

The applicant has requested public notification within the application document lodged on the 14 April 2022. The notification decision was made on 7 July 2022).

The notification appeared in two newspapers, the Waikato Times and the Te Kauwhata Chatter, on 20 July 2022. The notice and application documents including the further information requests and responses was on the Waikato District Council webpage. The Waikato Regional Council webpage provided a link to the Waikato District Council webpage.

The application was directly notified to the following parties.

Party	Association
Kate & Philip Thomas	Neighbour
Nicola & Paul Vitasovich	Neighbour
Rostrevor Trustees Five Limited	Neighbour
Rostrevor Trustees Five Limited	Neighbour
Scutts Trustee Limited	Neighbour
John & Roselei Holland	Neighbour
Transpower	Company
Department of Conversation	Government organisation
Huntly Community Board	Community Group
Waikato District Council	Local Government
Waikato Tainui	Iwi/Hapu
Waahi Whaanui Trust	Iwi/Hapu
Alan & Bronwyn Kosoof	Community group
Fish & Game Auckland/Waikato	Public entity

NGĀ URI O TAMAINUPŌ KI WHĀINGAROA TRUST	Iwi/Hapu
Te Riu o Waikato	Iwi/Hapu
Forest & Bird NZ	Public entity

The application was notified concurrently with the Waikato District Council notice with the close of submissions being 16 August 2022.

5.1 Submissions Received and Assessment of Submissions Received

The submission summary and assessment is attached as Appendix 1 to this report.

6 Statutory Considerations

The RMA section 104(1) refers to matters to which the consent authority must have regard, subject to Part 2, when considering an application for resource consent.

6.1 Assessment of Environmental Effect

Permitted baseline

Due to the scale of the proposal and the potential cumulative nature of the effects of the discharge activities for which consent is sought, there are no rules that provide a helpful or relevant permitted baseline for the consideration of this proposal.

The applicant provided an updated AEE on 15 July 2022 (WRC Doc # 24343573). With respect to the Regional components of the application, the AEE provides an assessment of the actual and potential environmental effects in terms of;

- Ecological Effects
- Discharge of contaminants to land and water
- Erosion and Sediment Discharges
- Stormwater Effects
- Land Stability Effects
- Ecological Effects
- Archaeological and Cultural Values
- Discharges to Air

I add comment under the following subheadings and add additional categories for the potential effects of site abandonment, effects to groundwater and climate change effects.

Potential Adverse Environmental Effects Assessment
<p>Ecological Effects</p> <p>The WRC engaged AECOM (Lyndsey Smith) to review the previous application lodged during 2020. Ms Smith resigned from AECOM prior to the lodgement of the current application, accordingly WRC engaged Papawera Geological Consulting (Karen Denyer) to undertake the ecological peer review of the new application. The peer review relevant to the current application is listed as follows and appended to this report (Appendix 4).</p>

Ecology Peer Review for WRC

- Letter titled 'Re: Gleeson and Cox Fill Consent Application: Wetland Ecological Effects', prepared by Karen Denyer, Principal Ecologist, Papawera Geological Consulting, dated 31 October 2022.

On review of the proposal and the expert assessments, I consider that the proposal has potential to adversely affect the environment to a more than minor extent.

The area of significant wetland loss or impact is considered to be underestimated as discussed in section 4.5 of Ms Denyer's peer review. This includes two small wetlands within 100 m of the proposed sediment retention ponds that are included on the ESC plans but not described or quantified in the application. Additionally, the compensation offered for the loss of significant wetland is inadequate and not like for like. The compensation package does not include the creation of new wetland, and most of the wetland-related compensation activities in the EMP had been conducted prior to the application lodgement as mitigation for the 2020 unconsented wetland drainage Fill Area 3. The residual activities within the EMP for Compensation are animal pest control, ongoing weed control, and terrestrial planting. These activities are considered by Ms Denyer as adequate offsets for proposed loss of terrestrial habitat (quantified as 3327 m² by Envoco, September 2022), but not appropriate mitigation for proposed loss of wetland extent.

Ms Denyer has provided the following concluding remarks and recommendations in the event that consent is granted.

"At this stage I am unable to conclude that the effects will be no more than minor, largely because the compensation package, after discounting works undertaken to mitigate unconsented drainage in Fill Area 3, does not provide adequate mitigation for the loss of at least 1869 m² of significant wetland.

If consent is to be granted the following conditions are recommended:

- 1. A compensation plan be required that mitigates wetland loss on a like-for-like basis as proposed in the EIA, i.e. the loss of wetland area be compensated by the creation of an area of the same or larger extent elsewhere. This could potentially be incorporated into the proposed sediment ponds.*
- 2. That any compensation area be subject to formal legal protection via an appropriate instrument linked to the title. If incorporated into the sediment ponds an allowance for maintenance activities would be required to allow the ponds to function as intended.*
- 3. Include a condition requiring lizard site-specific survey and salvage prior to and during habitat removal, to minimise mortality to any resident population. A suitable relocation site should be identified prior to any works being undertaken.*
- 4. Incorporate implementation of the Bat Management Plan as condition of consent with the requirement that it be compliant with best management practice for artificial roost management as outlined in: New Zealand Bat Recovery Group Advice Note – The Use of Artificial Bat Roosts. 18 October 2021. In particular specify that acoustic surveys be conducted in the appropriate season, that predator exclusion bands surrounding artificial roosts be inspected annually and adjusted as needed for 15 years, and that the bat reserve be subject to appropriate legal protection in perpetuity.*
- 5. Require a monitoring plan be developed and implemented for the compensation works and reporting requirements incorporated as a condition of consent."*

The applicant provided a further ecology response on 17 October 2022. The response consists of;

- Table of Ecology Responses (WRC doc 25021532)
- Vegetation quantification for FA2 and FA4 (WRC doc 25023398)
- Updated Erosion and Sediment Control Plans for FA2 and FA4 (WRC doc 25022530, 25020933, 25022042, 25021127)
- Reference to the Envoco Mitigation & Monitoring Report (report titled 'Ecological Mitigation Monitoring Report Gleeson Huntly Quarry Gleeson & Cox Ltd' prepared by Envoco, dated May 2022 (WRC doc 24601335)).

The erosion and sediment control plans have been updated to avoid disturbing two small areas of wetland vegetation downstream of FA2 and FA4, within 100 metres of the proposed earthworks.

The proposed ecological compensation still lacks 'like for like' compensation regarding the loss of wetland, no new wetland is intended to be created. Further, it is unclear if the full extent of wetland loss subject to this application has been quantified.

It is clear in a letter from Paua Planning (18/8/2020) which of the proposed compensation activities outlined in the EMP (Wildlands 2020) have been completed for past activities outside of this consent process as compensation works for the unauthorised earthworks at Fill Area 3. Ms Denyer clarifies which residual activities proposed in the EMP are relevant to the application lodged in 2022 (see Table 1 which clearly sets out the ecological loss/activity and respective ecological compensation. I recommend an ecological compensation table be appended to the condition Schedule. This would increase confidence that the compensation package is monitorable and enforceable, and that 'double dipping' is not occurring for previously completed compensation for activities outside of this consent process i.e. compensation for the unlawful Fill 3 drainage works or for Fill 5. The compensation should be like for like and additional to any outside requirements.

As raised in the submissions, the ecological compensation offered to compensate the adverse effects of the proposal should be additional to farm stock exclusion regulations. The relevant policies and legislation for the protection of rivers, lakes and wetlands from livestock includes the NESFW, NPSFM and Stock Exclusion s360 RMA. My understanding is that the proposed ecological compensation area is within a beef cattle farm, the applicant may be able to offer more information about land use. There are several variables to the stock exclusion rules depending on, for example: stock type and farming practice, land slope, width or river, type of wetland and date farming activities started. From my knowledge of the site, it is likely that rivers wider than 1 metre and natural wetlands within the compensation area would require fencing to exclude stock by July 2025. The 1m wide or greater rivers fenced with at least a 3m setback. I recommend that the stock exclusion works required by legislation are discounted from the applicant's ecological compensation proposal. Ecological compensation offered to compensate the adverse effects of the proposal should be additional to any other requirements. The stock exclusion works may not be required until July 2025, however the rules apply from when the legislation came into effect (early September 2020) which was before the lodgement of the application.

On the basis of the above, I am of the opinion that the application as it stands will have more than minor adverse effects on the environment. The proposed loss of significant wetland has neither been adequately assessed or compensated for. I consider that should consent be granted a full assessment of total significant wetland loss and like for like compensation by way of creation of new wetland would be required to achieve adequate compensation for loss of significant wetland. That a clear ecological compensation table which sets out the ecological loss and respective compensation be prepared and appended to the condition schedule. Any ecological protection or enhancement activity that is not additional to other requirements (stock exclusion rules, other consents, fill 3 compensation) is discounted from the ecological compensation equation for this application.

I consider that there are practical options for the creation of new wetland such as transitioning the

sediment retention ponds below each fill site to permanent wetland at the completion of filling.

Additional and like for like compensation would reduce the level of effect.

Discharges of Contaminants from Managed Fill and Cleanfill to Land and Water

Placement of unsuitable materials has the potential of contaminating waterways and subsoil through leaching of contaminants as a result of chemical and biological breakdown. The AEE is set out under the following subheadings.

Technical Assessment

Dr Jonathan Caldwell, Senior Scientist for the WRC, has undertaken a technical assessment of the discharge of contaminants into water or into/onto land associated with the application. Refer to Appendix 3 of this report.

The technical assessment is titled 'Technical Assessment of contaminant discharges to land and water – Gleeson's Managed Fill', updated 14 November 2022, prepared by Dr Jonathan Caldwell, Senior Scientist for the WRC.

I rely on Dr Caldwell's technical assessment of contaminant discharges with regard to the waste acceptance criteria, trigger limits for surface water discharges and assessment of level of risk to receiving surface water quality. Dr Caldwell concludes *"In conclusion, while I am in general agreement with EHS that the discharges associated with the proposed managed fill operation will not result in a more than minor level of effects within the receiving surface waters and would not be expected to result in a measurable change in water quality within Lake Puketerini or the Waikato river, this agreement is subject to the following amendments and qualifications:*

- *that the WAC for copper and boron are lowered as per my recommendations;*
- *acid sulphate soils and peat soils shall only be received at the site for disposal subject to the controls and monitoring regime similar to that proposed for dealing with the Fill Area 3 groundwater;*
- *marine sediments are not accepted at the site;*
- *The proposed management plans and monitoring programmes (subject to my recommended amendments) are adhered to; and*
- *Recommended amendments to consent conditions as detailed further below are adopted. Noting that apart from my recommendations above under the acid sulphate soil section of my assessment, I have not put forward any specific wording at this stage around acid sulphate soils but can do subject to whether the associated discharges are able to be accommodated under this consent application or not."*

Fill Area 3 Historic Coal Tailings Dump

Proposed Fill Area 3 is located on top of an historic coal tailings dump. There is uncertainty as to the volume of coal tailings at this site and the level of contaminants within the tailings. Further geotechnical assessment is required to establish what site preparations are needed to establish proposed managed fill area 3 at this location.

Fill Area 3 preparation works will include earthworks and subsoil drainage activities. Depending on the outcomes of geotechnical investigations, there is potential that some of the previously dumped coal tailings will require removal to stabilise the site. Any excavated fill will undergo contaminant testing to determine the appropriate disposal facility.

Earthworks and subsoil drainage activities at this site require specific controls and testing to ensure that any excavated fill and stormwater discharges are appropriately disposed of to avoid environmental contamination. The applicant has provided a Contaminated Site Management Plan (CSMP). The CSMP details the contaminant testing requirements of any excavated fill and the testing and disposal methods of surface and subsoil drainage water.

The subsoil drainage water will be pumped into a holding tank for contaminant analysis which will determine the disposal method. If contaminant levels are within an acceptable range the water will be discharged into the sediment retention pond prior to discharge into the catchment. If the subsoil drainage water exceeds contaminant triggers, the applicant has discussed the possibility of the water being trucked off site to an authorised facility or irrigated to farmland. Should the applicant choose to irrigate the water to land, a separate resource consent would be required.

Controls for the discharge of subsoil drainage water and the disposal of excavated coal tailings sourced from Fill Area 3 have been included within the recommended conditions of consent. However, as discussed in my recommendations under the below subheading I consider that the quality of subsoil water discharged should not rely on dilution to reduce contaminant load and should be of a quality that would contribute to the restoration of the degraded waterways within the catchment. Furthermore, I recommend that the holding tank capacity and disposal methods are adequate during high rainfall events to appropriately manage any discharges. It is unclear what volumes of water would require storage, testing and potentially trucking offsite.

Additional to the regional discharge effects, the applicant has applied to the Waikato District Council for a resource consent under the National Environmental Standards for Contaminated Soil to authorise the land disturbance activities proposed.

Acid Sulphate Soils and Marine Sediments

The applicant's proposal includes receiving acid sulphate soils (ASS) for treatment and disposal. The proposal is to store and treat ASS prior to discharging the treated leachate to the quarry pit pond and disposing of the treated ASS at the fill sites. The quarry consents do not authorise the discharge of ASS leachate to the quarry pit pond or manage the effects of this activity. I consider the effects management methods unclear which in turn increases the environmental risk of the ASS activity.

Dr Caldwell has made the following comment with respect to acid sulphate soils.

“Management of acid sulphate soils and marine sediments

Acid sulphate soils (ASS) occur naturally and when disturbed and exposed to air can become oxidised which can result in generation of acidic leachate which can mobilise inorganic elements such as iron, arsenic, copper and zinc which can result in surface and groundwater contamination. ASS can be stabilised by treatment with lime which prevents acidic leachate generation. ASS have been identified recently in several locations within the Waikato region as well as the Auckland and Northland regions with a project to map the likely presence of ASS in the Waikato region currently in progress.

The Fill Site Management Plan and EHS Support's AEE and draft Acid Sulphate Soil Management Plan provide specific controls and procedures around managing the effects of ASS as well as marine sediments if they are disposed of at the site as follows:

- *Limed and stabilised ASS can be accepted in the managed fill without any further treatment provided adequate documentation is provided as evidence of the ASS properties and treatment and on-site soil treatment validation testing provides confirmation that the soils*

have been sufficiently treated.

- *Untreated ASS can also be accepted but will be required to be treated on site on a purpose-built treatment pad where runoff will be piped to a holding pond sized for up to the 50 year storm event. The pond will be dewatered by pumping to the quarry pit when its pH is between 6 and 9. The pH will be monitored and buffered with caustic soda if required to ensure the pH range is achieved.*
- *Marine sediments must have a solids content of at least 20% and liberate no free liquids when transported; meet the waste acceptance criteria outline in Table 5 of the AEE; and have undergone ASS testing and be limed neutralised.*

My initial assessment of this proposal and response was that there is going to be an increased requirement for disposing of ASS at an appropriate disposal facility in the Waikato region due to the increased awareness and investigations undertaken. Many disposal facilities do not have any specific contingencies or controls for dealing with ASSs and therefore EHS's proposed approach to managing treated and untreated ASS and marine sediments provides a transparent mechanism for ensuring that these soils are appropriately dealt with. My opinion was that subject to installation of the proposed treatment pad system and adherence to the proposed procedures and controls specified in the ASS management plan, that the risks could be adequately mitigated. This was also subject to my additional recommendation that there should be frequent testing of metals and pH from the treatment pad pond runoff prior to discharge to the quarry pit.

However, I have since become aware that the treatment pad discharges via the quarry pit would not be authorised by the current suite of consent applications or that such a discharge would require authorisation via a separate consent application or variation to the existing quarry pit discharge consent. Whatever the required consenting mechanism, I do have some changes to my original recommendations around controlling and monitoring these discharges which if implemented and complied with, should result in a no more than minor level of effect on offsite surface water.

I agree with EHS's proposal that pond water containing run off from the treatment pad will need to be monitored for pH to ensure that it is between 6-9 pH units before it can be discharged to the quarry pit. However, I would recommend that the pH will need to be checked on a daily basis as well as before any discharge to the quarry pit. In addition to this, any discharge to the quarry pit should also be subject to boron, copper, lead and zinc analysis using the onsite HACH D 3900 spectrophotometer as per the methodology proposed for allowing release of the contaminated groundwater from under Fill area 3 to the Fill area 3 sediment retention pond. This would require development of appropriate criteria based on the sizing of the treatment pad pond volume and the volume of the quarry pit. If it doesn't meet this criteria then contingencies for treatment such as pH neutralisation or flocculation or trucking away for authorised offsite disposal will need to be undertaken.

In addition to this, I would also recommend that discharges from the quarry pit are subject to routine monitoring and analysis for the full suite of contaminants as per discharges from the managed Fill Area sediment retention ponds (i.e. Al, As, B, Cd, Cr, Cu, Pb, Ni, Tl, Zn and TPH) with trigger limits based on ANZ guidelines for freshwater 95% protection and a TPH trigger of 5 mg/L (33% of the MfE 1998 Petroleum Guidelines). I would recommend that this monitoring occur at least six times per year (i.e. 2 monthly).

I would also recommend that acid sulphate soils (including peat soils) that have been limed and stabilised offsite prior to delivery (subject to provision of adequate evidence prepared by a SQEP) that pHox testing of representative samples of soils from each delivered load prior to acceptance should also be required as an additional level of confirmation of adequate treatment.

I have also considered the concerns and comments raised by submitters, specifically regarding marine sediments and odour. It is correct that marine sediments can produce odour from hydrogen sulphide. This risk is usually greatest during the initial disturbance of those sediments from their source but there could be some residual odour risk at the disposal end. However, while I consider that the odour risk could be properly managed, especially if there is a requirement for the sediments to be stabilised with lime, no such assessment of this risk has been provided and there is also the inherent risk of high concentrations of metal and organic contaminants within the marine sediments, especially from estuaries, which are often sinks for land-based contaminant runoff. There has been no proposal on how that risk would be managed which would require a quite specific and representative investigation design, including contaminant suite identification for analysis. I am therefore recommending that marine sediments, even if treated, should not be received at this site."

Due to the uncertainty of the applicant's ASS effects assessment and that there is no resource consent that authorises the discharge of runoff from the proposed ASS treatment pad to the quarry pit pond, I recommend that if consent is granted only lime stabilised ASS is received at the site and marine sediments are prohibited.

Managed Fill maximum Acceptance Criteria (MAC)

The recommended conditions set out the contaminant MAC for fill imported to the site APP144475.03.01, Condition 12, Table 1. In recommending the MAC I have considered the Wasteminz Guidelines October 2022 set out MAC for class 3 landfill, and the applicant's proposed MAC which is based on their discharge effects assessment and effects modelling. The applicant's MAC is set out in their proposed conditions of consent.

I consider that it is appropriate to use the most conservative limit for each analyte, either the MAC proposed by the applicant in their conditions which discharge effects modelling has been based on, or the Wasteminz MAC for class 3 landfill.

Consents Officer Recommendations and Comments

I make the following comments to link in the broader policy and operational aspects of the activity. The Waikato River is degraded and activities within the catchment must contribute to the long-term restoration of the river to align with the RPS. The Vision and Strategy and Plan Change-1 provide a framework for deciding whether a proposed discharge activity within the catchment is consistent with the goal of restoring the health and wellbeing of the Waikato River.

The proposed discharge contaminant concentration limits have not been established for all the analytes. Further testing is required to establish permanent water quality trigger limits for zinc (WETT derived value for zinc), aluminium and chromium (after monitoring to establish background concentration levels). The water quality limits are an integral part of the AEE, cumulative effects and assessment of whether the proposal meets discharge policies. The trigger limits should be assessed and determined prior to authorisation of the filling activity to increase certainty and prevent loose ends should the application be granted. The option would remain open for the applicant to apply to change the discharge trigger limits at a later date provided the change is within the scope of s127 RMA.

The water quality trigger limits have been set commensurate to the degraded quality of the receiving waterways. Elevated concentrations of dissolved zinc, aluminium and chromium have been identified in the unnamed stream below FA3 and FA4 at sampling location DS2. The unnamed tributary below FA2 might at times be elevated in aluminium, thallium and zinc relative to other rural streams. In my opinion, it is not appropriate to have higher discharge thresholds because of poor quality receiving waters and for FA3 subsoil drainage water a reliance on a minimum level of dilution. This approach does not provide for the restoration of degraded waterways. The approach would enable the cumulative discharge of contaminants for the duration of the consents (35 years sought) at contaminant concentration levels consistent with the existing (degraded) receiving waterways. The opposite should occur, the water quality limits should be set at a more conservative level to reflect the need to restore degraded receiving waters.

I accept that because of factors including poor receiving water quality and high dilution/mixing, the discharges are not expected to result in any measurable change in water quality within Lake Puketerini or the Waikato river. However, I consider that over the term of the consents the proposal would result in a cumulative contaminant load entering the Waikato River catchment which would be higher than the existing environment load.

As discussed in section 6.2 of this report, the proposal is inconsistent with the Vision and Strategy for the Waikato River which aims to restore and protect water quality within the Waikato River catchment. Furthermore, the Environment Court Decision *Puke Coal Ltd. V Waikato Regional Council* is relevant to resource consent applications within the Waikato River Catchment subject to the Vision and Strategy. A resource consent application must demonstrate that the activities will result in a net benefit to the Waikato River catchment, proportionate to the effects of the proposal.

To meet the Vision and Strategy requirements, I recommend that fill acceptance criteria and water quality limits are set conservatively to ensure any discharges from the site will improve receiving water quality and provide for the ongoing restoration of the catchment over the duration of the consents. Appropriate water quality and fill acceptance criteria should be assessed by the experts in respect to the Vision and Strategy catchment restoration objective, and the contaminant criteria included within the condition schedule.

The proposal includes destroying the wetlands which are within each fill area footprint and the ecological compensation does not include the creation of new wetlands. Wetlands have water attenuation functions, the loss of the wetlands will reduce water attenuation and treatment within the catchment. The proposal does not compensate for this water attenuation and treatment loss. I recommend that proportionate like for like compensation is offered for the wetland loss by way of the creation of new wetlands to compensate for the loss of existing wetland water attenuation and treatment functions. The creation of new wetland at a 1:1 ration is recommended in the applicant's Ecological Impact Assessment, although not offered in the compensation package.

The application places a high reliance on draft management plans. I recommend that consent limits and monitoring requirements are in the conditions of consent, not only in the management plans. This will increase the certainty of the operation. Management plans lack enforceability and are subject to reviews, changes and hap-hazard approvals over the term of the consent. The purpose of the management plans should be limited to explaining how the conditions will be met, and the conditions are to contain the enforceable limits and actions.

The fill and environmental monitoring programme is technical, complex and involved. In my opinion, the monitoring and management of the site would require a person with a high level of qualification, technical skills and experience to adequately monitor and manage the operation and be regularly located at the site. I note that the technical aspects of the proposal and concerns about the integrity

of the applicant were raised in the submissions. I recommend that should consent be granted conditions require an independent SQUEP to regularly audit the site and report findings to the Huntly Community Board and/or if set up Community Liaison Group.

I recommend that in addition to the random fill sampling requirements, that verification sampling is undertaken prior to closure, capping and final rehab of each fill stage. The verification sampling is to confirm that the fill deposited is in accordance with the acceptance criteria. Additionally, I recommend that verification sampling of the fill deposited be required in the event that surface water quality contravenes the surface water quality criteria at sampling points within receiving waterways or at the pond discharge sampling point.

I conclude that the discharge activity as set out in the application is complex and lacks certainty. There is too greater reliance on future monitoring to confirm trigger limits and on management plans which lack enforceability and which risk ongoing arbitrary changes and approvals.

In my opinion, the proposal does not provide for the restoration of water quality within the Waikato River catchment and contaminant limits reflect the current degraded state of the receiving water ways. The discharges of contaminants to water will be cumulative over the duration of the consents. The proposal is inconsistent with the Vision and Strategy for the Waikato River and would lock in the continued degraded state of receiving waterways for the duration of the consents. The proposal would result in the permanent loss of wetland (net loss) and the associated water attenuation and treatment functions.

I support submitters comments around the need for independent auditing and sharing environmental monitoring results with the public. I recommend verification sampling of each fill stage prior to closure and independent random fill and site monitoring by a SQUEP, refer to recommended conditions. To give added confidence to the community, I recommend that monitoring results are shared with the Huntly Community Board and (if set up) Community Liaison Group.

Erosion and Sediment Discharge Effects

Soil disturbance and filling activities have the potential to discharge sediment into waterways both during and after the works until the ground surface is stabilised. Sediment discharges to water can cause a range of adverse effects on freshwater ecosystems, including smothering aquatic life, damaging fish and invertebrates' gills, destruction of spawning grounds, and the deposition of nutrients to waterways. Increased turbidity can interfere with aquatic animal's abilities to feed due to poor visibility and reduced light penetration.

The proposal is to import up to approx. 300,000 m³ of cleanfill and managed fill per annum. Approx. 2 million cubic metres of managed fill will be deposited between the three fill sites which have a combined footprint of 13.1 ha.

Activities associated with the fill operation will generate sediment, in particular disposal of overburden, receiving backloads of managed fill and cleanfill, and associated earthworks. The activities are proposed to occur over a 35 year consent term which will cause cumulative sediment effects to receiving environments.

The AEE provides an assessment of erosion and sediment discharge effects and includes an Erosion and Sediment Control Plan. The ESCP proposes the installation of a sediment retention ponds below each fill site with rainfall activated chemical treatment facilities at the ponds. The treated water from Fill Areas 3 and 4 will discharge into ephemeral tributaries of the Waikato River and treated water from Fill Area 2 will discharge to a waterway within the Lake Puketirini catchment.

The maximum open area at any one time from is proposed to be 3 ha. Minimising exposed areas will

reduce dust discharges and erosion and sediment discharges. Which will in turn reduce the pressure on erosion and sediment control devices.

The Erosion and Sediment Control Plans (ESCP) for FA2-4 submitted with the application have been reviewed by WRC Monitoring Officer Josh Evans refer to Appendix 7 of this report. Mr Evans' concludes that *"To summarise, upon my reviewal it appears that the proposed methodologies and practices on principle will be appropriate for the proposed works upon review of the updated Erosion and Sediment Control Plans. I can confirm that all s92 responses relevant to erosion and sediment control aspects of the application have appropriately addressed queries raised by myself."*

Mr Evans' review included assessment of the ESCP's against the Waikato Regional Council Erosion and Sediment Control Guidelines (TR2009/02) and the controls and design methodologies were considered to be in accordance with the TR2009/02 Guidelines.

The applicant provided updated an updated ESCP for FA2 and FA4 on 17 October 2022 which have not been reviewed. I understand that the changes are to the proposed sediment retention pond locations below FA2 and 4 which have been moved to avoid wetland areas. The recommended conditions of consent require review and certification of the draft ESCP prior to commencement of works.

I rely on Mr Evan's review of the ESCP documents for FA2-4. I add additional comment, as follows, on the potential cumulative effects of sediment discharges over the term of the consent and method to monitor and quantify effects from any unexpected discharge events.

I am of the opinion that the applicant's AEE is lacking assessment of the cumulative effects of sediment discharge and method to quantify and mitigate such effects. The recommended conditions require the suspended solids concentration of any sediment retention pond discharge shall not exceed 100g/m³ or the sediment retention pond shall treat water to no less than 90% efficiency. Additionally, I recommend that sediment yield is measured at the final discharge points and compensation is offered to result in a net benefit to the Waikato River catchment (Refer to Vision and Strategy Assessment in this report).

The recommended conditions (Appendix 8 to this report) include method to quantify cumulative sediment yield, real time monitoring of turbidity and flow, and an Adaptive Management Plan to evaluate and address the effects of sedimentation on an ongoing basis.

I recommend that the surface water monitoring programme is undertaken for at least the duration of the consents and until the fill sites and discharges have been demonstrated to meet the permitted activity standards. I understand that the applicant seeks a shorter duration water quality monitoring programme.

The proposal as it stands does not demonstrate a clear method to quantify the cumulative effects of sediment yield or compensate for the cumulative effects of sediment discharges. I recommend that the applicant provides further assessment and method of how cumulative discharge effects will be calculated and compensated for and that enough detail is given to strengthen the consent conditions.

Stability of Fill

The deposition of overburden, cleanfill and managed fill has the potential to cause fill instability if the geotechnical design and management of the filling operation is not appropriately designed and managed. The potential adverse environmental effects include erosion, slope failure and poorly treated stormwater discharge from the site.

The combined capacity of Fill Sites 2, 3, and 4 is approx. 2 million cubic metres over a combined area of 13.1 ha.

The applicant has provided a geotechnical report '*Gleeson Quarries Ltd, Huntly Quarry Disposal Sites, Huntly Quarry Disposal Sites – Geotechnical Assessment*', prepared by GAIA Engineers, dated September 2019 (WRC doc # 15124545).

The WRC engaged Mr Cameron Lines of Baseline Geotechnical to undertake a technical review the geotechnical aspects of this proposal. The peer review documents are listed as follows;

- '*Preliminary Geotechnical Peer Review – Huntly Quarry Pre-Application Review*', prepared by Baseline Geotechnical, dated 9 October 2019. WRC doc # 15246185.
- '*Huntly Quarry Fill Disposal Sites, Summary Register of Geotechnical Comments from Peer Reviewer*', Prepared by Baseline Geotechnical, dated 3 November 2019. WRC doc # 15363822 and 3 January 2020 version WRC doc # 16072980.
- '*s92 Geotechnical Requests, Huntly Quarry Fill Sites 2, 3 and 4*', prepared by Baseline Geotechnical, dated 11 December 2019.
- Concluding comments, email from Baseline Geotechnical 4 February 2020. WRC doc # 16073189.
- Geotechnical Review - Huntly Quarry 2022 Managed Fill Application, prepared by Baseline Geotechnical, dated 7 June 2022. WRC doc # 24089804.

Cameron Lines has reviewed the relevant documentation and his full review can be found in Appendix 2. Following Mr Lines' review which was undertaken for the previous application (February 2020), Mr Lines concluded;

I have been through and reviewed the additional information supplied by GAIA dated 15 January 2020 (Attachment A of the S92 response).

The items we requested further information on as set out in our letter dated 11 December 2019 in Section 2.1, 2.2 and 2.3 have been adequately addressed in the additional information supplied by GAIA.

The information provided to date along with the ongoing detailed design work to follow consenting indicate that the proposed fill slopes can be constructed within normally accepted risk tolerances for such landforms.

WRC again engaged Baseline Geotechnical, Mr Cameron Lines, to review the new application and to check whether any changes or updates were required to the 2020 review. A technical review summary was prepared, dated 7 June 2022, refer to Appendix 2 of this report. Mr Lines confirmed that the surface topography of the three fill sites in the current April 2022 application is the same as the last. Therefore the work undertaken to support the previous consent by Gaia & reviewed by Baseline Geotechnical remains valid. There are no material differences from a geotechnical perspective. The previous review queries have been addressed and are incorporated into the current application.

On the basis of the outcomes of the technical review, I consider that the stability of the fill sites has been adequately addressed and assessed by the applicant. To ensure the fill sites are designed and managed in consistency with geotechnical best practice and the plans, I have recommended specific conditions of consent as well as the requirement for ongoing periodic assessment of the sites by a chartered professional engineer. Refer to the recommended conditions section titled 'Fill Stability', Appendix 8.

Tangata Whenua Values

Consultation has been undertaken with the Waahi Whaanui Trust (WWT) and a Cultural Impact Assessment has been prepared, however the content of the CIA does not reflect the current WWT views and has therefore not been considered in this assessment. The author of the CIA, Mr Norm Hill, advised in his submission on the application dated 11 August 2022 *“The Cultural Impact Assessment written by me in March 2021 is dated and is not relevant to the current application.”*

The Waahi Whaanui Trust Board (WWT) of Trustees represent six marae Kaitumutumu, Te Kauri, Te Ohaaki, Matahuru, Taupiri and Waahi marae. The submission on the application dated 11 August 2022, author Norm Hill, advises that the marae leaders oppose the application.

Mr Hill’s letter of submission date 11 August 2022 gives the following information and reasons for the opposition;

- *Te Ture Whai Mana is consistent with the overarching purpose of the settlement between Waikato-Tainui and the Crown to restore and protect the health and wellbeing of the Waikato River.*
- *The health and wellbeing of mana whenua is directly linked to the health and wellbeing of water quality. Water quality and protection of aquatic life in the stream is a requirement for any tributary within the project area. The Waikato River are vitally important water sources that service the cultural and environmental aspirations of mana whenua, including recreational and food source. These wai ora – taonga need to be protected for legacy and livelihood purposes.*
- *Our ability to exercise Mana Whakahaere or conduct our tikanga and kawa is at threat.*
- *I consider that the proposal will have significant effects on ecological values.*
 - *The aquatic life of the unnamed tributary of stream requires protecting and conserving along with the relocation of any fish species.*
 - *Concerned at the localised depletion of ecological resources, fish and invertebrate movements and the ability of the local ecosystem to manage habitats.*
- *I consider the proposal will have major adverse effects on landscape and cultural values with nearby mana whenua beneficiaries.*
- *Adverse effects on health and nuisance effects.*
- *Effects on health and wellbeing of mana whenua is linked to water quality and protecting aquatic life / fish species within the local stream within gully 2 including the receiving water bodies of Waikato River.*
- *Potential effects on geology and overburden disposal area.*
- *Potential levels of noise pollution*

An outcome of the earlier consultation for the previous application for fill sites 2 – 4 was agreement to prepare a Maataranga Maaori Environmental Monitoring Plan. The applicant provided a condition of consent to reflect the agreed Maataranga Maaori monitoring approach. This draft condition has been included in the recommended conditions of consent and provides ongoing opportunity for iwi involvement.

I am of the opinion that there is a potential adverse effect to tangata whenua in terms of the matters addressed in s6(e) and 7(a) RMA. Tangata whenua including Waikato Tainui are a major stakeholder with regard to the Waikato River. Stormwater discharges from Fill Areas 3 and 4 are will drain into a tributary of the Waikato River. Stormwater discharges from Fill Area 2 are in the Lake Puketirini catchment which is part of the wider Waikato River catchment. As discussed in the AEE I am of the view that the discharges from the site are contrary to the restoration and protection of the Waikato River and waterways within the catchment.

I consider that the disturbance of the historic coal tailings dump at Fill Area 3 and the discharge of approximately 2,000,000m³ of managed fill across fill Areas 2 – 4 within the Waikato River catchment, has the potential to adversely impact the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga. The managed fill activity would change the physical landscape, and introduce a new contaminant load to the catchment which would have ongoing discharges of stormwater and subsoil drainage water to the Waikato River. The WWT expressed in their letter dated 31 August 2021 that *“The emotional and environmental legacy issues of historical waste/contaminants that remain stored in our whenua, alongside our awa tūpuna continues to hurt, and harm the hearts and minds of community and tribal peoples.”*

Furthermore, the proposal does not give sufficient regard to the exercise of guardianship by tangata whenua of the area in accordance with tikanga Maori in relation to natural and physical resources; and the ethic of stewardship.

I give weight to the opinions of tangata whenua in guiding the assessment of effects to tangata whenua values and the implementation of kaitiakitanga (s7 RMA). To understand the proposal in light of Maori concepts, mauri, and from a spiritual background the assessment to tangata whenua values is most appropriate to be led by iwi. It would be problematic to assess these matters from a purely scientific standpoint or via European concepts.

On the basis of the above, I consider the adverse effects to tangata whenua are likely to be more than minor.

I acknowledge the time and resource tangata whenua have put into visiting the site and understanding the series of applications lodged, withdrawn and altered over the past three or so years. The proposal has been a moving target.

Discharges to Air

The managed fill operation has the potential to discharge contaminants to air. Including dust discharges from vehicle movements, exposed areas and earthworks; combustion source emissions from heavy machinery; and the discharge to air of contaminants within the managed fill including airborne asbestos fibres.

Dr Jonathan Caldwell, Senior Scientist for WRC has undertaken a technical assessment of discharges of contaminants to air, which includes response to relevant concerns raised by the submitters. Submitters have raised concerns about the potential discharge of dust, asbestos fibres, erionite and tremolite. The assessment is titled *‘Technical Assessment of Air Discharges, Gleeson’s Managed Fill’*, dated 9 August 2022, updated on 4 November 2022, Appendix 5 to this report.

For the purpose of this report I adopt Dr Caldwell’s Technical Assessment in its entirety. The Technical Assessment concludes:

“PDP has identified and assessed both dust and combustion related discharges to air associated with the managed fill activities, including vehicle movements, stripping of topsoil for establishing fill areas, placement of fill including asbestos containing materials, rehabilitation of fill areas with topsoil and fugitive emissions from exposed surfaces. I do not anticipate any risk of odour effects as long as there is compliance with acceptance of the specified types of fill that can be received at the site.

In summary I agree with PDP’s conclusion that the discharges of dust from the activities associated with the proposed operation is not expected to result in a significant dust nuisance or health effect relative to applicable air quality guidelines and standards provided the proposed mitigation and

monitoring methods are implemented to control dust to an acceptable level as well as adherence to the proposed methods for managing and monitoring asbestos disposal. In my opinion, effects will be no more than minor from discharges associated with these sources but this is subject to a proactive adherence to the controls, monitoring and management procedures that have been proposed and the additional recommendations that I have made.”

The recommended conditions of consent incorporate the recommendations made in Dr Caldwell’s Technical Assessment. The Discharge to Air conditions include:

AUTH XX.03.01 - Asbestos monitoring and management, conditions 22 – 33.
Schedule One - dust management, conditions 39 – 50.

I am of the opinion that discharges to air from the managed fill operation can be managed to an extent to ensure any adverse effects are no more than minor provided that Mr Caldwell’s recommendations are adopted.

Groundwater Effects

Tim Baker, Principal Consultant – Water Resources for SLR undertook a technical review of groundwater effects in relation to fill areas 2 – 4 for WRC. Refer to Appendix 6 of this report.

- Technical Review of Groundwater Effects, dated 10 June 2022, prepared by Tim Baker, SLR.

Mr Baker made the following conclusions, recommendations and information requests:

Conclusion / Recommendations I have the following questions/requests/queries, and recommend that they be put to the Applicant to assist the review of groundwater related effects:

Conceptualisation

- *Please provide a validation of the hydraulic properties listed in Table 2 of Appendix 10.1 Waste Acceptance Criteria Report. These are referenced as being from an ‘unpublished PDP report’ and have no supporting information (as fields sheets, monitoring locations etc). An explanation of who collected the data, under what methodology, when and how they were collected is required. As the only data of this type presented, they are critical to the assessment.*
- *Please provide a conceptual cross section/s of the site that includes interpreted groundwater levels relative to the quarry, the fill areas, and receptors such as streams/wetlands/river.*
- *Quarry dewatering – is this permanent and what is the radius of influence. If quarrying stops, will groundwater levels increase and would this affect any of the Fill areas? A cross section may be useful in assessing this risk.*
- *There is no mention of groundwater strike on BH301 and BH302. Is this because no groundwater was encountered, or because it was not recorded?*

Effects on shallow groundwater flow

- *There is reference to the potential for springs and seeps at least two of the Fill Areas in the GAIA geotechnical report. Has any further information on the presence of springs been obtained?*
- *Will activities (such as underdrainage) at any of the Fill Areas result in the loss of stream flow downstream from the Fill Areas? Noting the potential for drainage water from FA3 is to be trucked offsite if quality is not suitable for discharge to the streams. If so, has this been*

quantified (such as via a simple water balance model)?

Modelling

- *There is limited documentation on the conceptual setting (geology/hydrogeology) assumptions adopted for the RBCA modelling. The model requires inputs such as groundwater depth and hydraulic conductivity. Please provide further information on the assumptions made to populate the model inputs.*
- *Is the RBCA assessment representative of the fate and transport of contaminants from all three proposed Fill Areas?*
- *Does the RBCA model include the mine tailings contaminants present at FA3?*
- *Is the Waikato River is the most appropriate receptor given that the pathway to the river would be via the regional groundwater system. The general conceptualisation and geotechnical reporting indicates that the most likely pathway would be via shallow groundwater seepage to localised wetlands/streams/springs, then the Waikato River.*

Monitoring

- *What monitoring of groundwater is proposed?*

The applicant provided a response to Mr Baker's information requests and queries and Mr Baker advised by email on 26 August 2022 that:

I have now reviewed the s92 response letter and Appendix F. From a groundwater perspective they have responded to all my questions.

The new information does help conceptualise the site in more detail and demonstrates a clear differentiation between the deeper groundwater system and the shallower, perched units. This is the basis for them not recommending any groundwater monitoring. I'd like to consider this some more, but conceptually I'm probably ok with that, so long as there is a shallow surface water monitoring programme in place, and perhaps a framework that would require the consideration of installing deeper groundwater bores, if contamination of the shallow perched groundwater/surface flow is observed. Happy to discuss this further.

I recommend that if consent is granted and as a minimum, a framework is in place that would require a groundwater investigation, including the installation of monitoring bores if contamination of surface flow is observed not attributable to overland runoff. I request that the groundwater experts draft conditions to this effect and I have added a placeholder condition to the recommended conditions, APP144475.03.01, condition 40.

Site Abandonment

If the site is not rehabilitated to an appropriate standard or in the event it is abandoned prior to the site being fully rehabilitated, it has the potential to cause adverse effects on the environment including contaminant discharge to water, incomplete mitigation of adverse ecological effects, amenity values, loss of soil productivity and instability.

To ensure that in the event of non-performance with conditions or the inability of the applicant to complete any rehabilitation works required, the Council may require a bond to ensure completion of such works.

Section 108(1)(b) allows a consent authority to impose a condition of a consent which requires a bond be given in respect of the performance of any one or more conditions of the consent.

I have added the requirement for a bond to Schedule One of the Recommended Conditions (Appendix 8). If the application is granted, the bond quantum will require WRC review and agreement to ensure it is sufficient to cover the rehabilitation works which would be required in the event of the company being unwilling or unable to rehabilitate the site.

It is my recommendation that a minimum bond quantum is assessed during the application process. From past experience with different sites/consents it can be challenging and costly to reach agreement on the bond quantum after decision on the application.

The applicant has offered a bond of up to the value of \$250,000, refer to section 19.3 of the AEE. A breakdown of site rehabilitation works and costings has not been provided. From my experience reviewing bonds for other similar sites, a higher bond quantum would be required to cover rehabilitation and ongoing monitoring costs in the event of site abandonment, I estimate somewhere in the vicinity of \$400,000 to 500,000 limited to the managed fill consents. A separate or additional bond quantum will be required for the adjoining quarry during the quarry re-consenting process. Bond costings would need to be at market rates and cover such activities as:

- Importation of clean material to cap and cover the active fill areas, contouring and revegetation of sites.
- Maintenance of cleanwater diversion drains, stormwater controls and treatment devices.
- Completion of the ecological compensation, fencing, planting, ecological monitoring, establishment of covenants and pest control for the durations set out in the Ecological Management Plan.
- Ongoing environmental monitoring until consents are no longer required, site meets permitted activity standards.
- Engagement of a project management to oversee the site rehabilitation and environmental monitoring.
- Ancillary costs such as engagement of legal, accounting and engineer services as required.

The bond quantum should be regularly reviewed, about every 5 years, and adjusted for inflation.

Provided an adequate minimum bond quantum forms part of the application and the bond is established prior to works commencing, compliance with the recommended bond conditions should ensure that potential adverse effects on the environment in the event that the site is abandoned are no more than minor.

Climate change effects

Section 7(i) of the RMA identifies the effects of climate change on the proposal as an “other matter” to which particular regard must be had. I have considered the potential for climate change to affect the proposal, it is possible that the site will experience more frequent or severe weather events which could lead to land instability or increased stormwater discharges. I consider that severe weather events do pose a risk to stormwater infrastructure, associated treatment and management of discharges and site stability. The AEE for erosion and sediment control has considered the average reoccurrence interval (ARI) between selected size flood events i.e. 50 year ARI. The erosion and sediment control plan contains a number of measures to minimise environmental risk during flood events including ensuring stormwater controls are sized appropriately for the catchment area. The draft Erosion and Sediment Control Plans have been reviewed and found to be in general accordance with the Waikato Regional Council Erosion and Sediment Control Guidelines for Soil Disturbing Activities TR2009/02. The site will also be designed in accordance with geotechnical best practice to ensure fill stability, refer to the geotechnical AEE and technical assessment.

Additionally, I have recommended shorter consent durations than the 35 years requested, the recommendation being 10 – 15 years. The shorter durations will reduce risk of increased climate

change effects which could occur over a greater time span (refer to section 7 of this report).

6.2 Policy Statements, Plans and Regulations

6.2.1 National environmental standards

There are currently seven National Environmental Standards in effect;

- National Environmental Standards for Air Quality
- National Environmental Standard for Sources of Human Drinking Water
- National Environmental Standards for Telecommunication Facilities
- National Environmental Standards for Electricity Transmission
- National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health
- National Environmental Standards for Plantation Forestry
- National Environmental Standards for Freshwater

National Environmental Standard for Sources of Human Drinking Water (NES – Drinking Water)

The National Environmental Standard for Sources of Human Drinking Water commenced on 20 June 2008. This standard is a regulation enacted by an Order in Council, under s43 of the Resource Management Act. The regulation requires that a regional council must not grant a water or discharge permit for an activity that will occur upstream of a drinking water abstraction point if specific criteria at the point of abstraction are exceeded. The matters to be considered as part of an assessment are dependent on the permit being sought and the level of effects on any drinking water supplier located downstream or down gradient of the activity.

Under this regulation a regional council may also impose a condition of consent on any resource consent application requiring the consent holder to notify, as soon as reasonably practical, the registered drinking-water supply operators and the regional council if the activity leads to an event that, or as a consequence of an event, results in a significant adverse effect on the quality of the water at the abstraction point.

There are municipal surface water takes downstream from the Waikato River downstream of the fill site discharge points.

Provided the recommended conditions of the consent are complied with I am of the opinion that discharges of treated water from the consented footprint will have less than minor effects on water quality within the 2km drinking water supply buffer zones or at the take points. However, as a precautionary measure in the event of consent non-compliance and poor quality water discharge from the site, I consider it appropriate under Regulation 12 to impose conditions requiring the consent holder to notify water suppliers of uncontrolled discharges etc that might affect water quality.

National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health (NESCS)

The applicant has applied to the Waikato District Council for resource consent for a controlled activity under Regulation 9 of the NESCS. Proposed Fill Area 3 is located on top of a historic coal mine tailings dump and the preparation of fill area 3 will disturb the old coal tailings triggering the requirement for resource consent under the NESCS.

The NESCS is administered by the territorial authority, and the above mentioned application has been lodged with the Waikato District Council. For these reasons, no further evaluation is necessary pursuant to the NESCS.

Dr Caldwell for the WRC has peer reviewed the applicant's AEE for the potential discharge of contaminants from the disturbance of the historic coal tailings dump. The review is included within the AEE of this report. Additionally recommended conditions of consent require a Contaminated Site Management Plan (AUTH144475.01.01).

National Environmental Standards for Air Quality

The resource consent does not authorise the acceptance of putrescible materials. The fill sites will contain inert material that will not biodegrade and release gases. Application has not been made for the discharges of dust from the fill sites and earthworks, it is considered that discharges to air will be managed under the suite of consents sought.

The applicant has provided an Asbestos Management Plan and a Dust Management Plan. Dr Jonathan Caldwell has peer reviewed the applicant's air discharge AEE and respective management plans. Refer to the AEE of this report and Dr Caldwell's peer review WRC doc # 24498211.

To provide an increased confidence in the quality of discharges to air from the site, APP144475.03.01 and Schedule One contain a suite of recommended air discharge condition limits and monitoring conditions. Provided the recommended conditions of consent are adhered to, I am of the opinion that the application is not contrary to the NES-Air.

National Environmental Standards for Freshwater

The National Policy Statement for Freshwater Management 2020 (NPSFM 2020) and the Resource Management (National Environmental Standards for Freshwater) 2020 (NESF 2020) took effect on 3 September 2020.

The proposed activities trigger the following Standards under the NESFW.

NESF Regulation	Activity	Activity Status
Regulation 57	Reclamation of the bed of any river is a discretionary activity.	Discretionary
Regulation 54(c)	The taking, use, damming, diversion, or discharge of water within, or within a 100 m setback from, a natural wetland.	Non-Complying

On 13 July 2022 the applicant applied for an additional consent under Regulation 54 NESF. The applicant advised that additional ecological investigation determined that the proposed discharge of stormwater from sediment retention ponds within Fill Areas 3 and 4 are within 100m from two small natural inland wetlands. Any damming (holding water in the sediment ponds) or diversion of water within the 100m setback would also trigger Regulation 54.

The AEE and ecological reports assess that the proposal would result in the loss of ephemeral and intermittent water courses. Consent is sought under Regulation 57 NESF.

Should consent be granted I have drafted recommended conditions of consent to reflect the NES Regulation 55 - General conditions on natural wetland activities - to manage the effects of stormwater discharges within 100m of a natural wetland.

AUTHXX.07.01 Condition 2 addresses potential changes to bed profile and hydrological regime of any natural wetland within 100m of site discharges.

AUTHXX.04.01 suite of water quality testing and monitoring conditions.

With regard to the stream reclamation activity, the applicant has provided an Environmental Management Plan which has been added to the recommended conditions of consent. As has a Fish Management Plan, including translocation methodology.

6.2.2 National policy statements (including NZ Coastal Policy Statement)

There are currently six National Policy Statements which Regional Policy Statements must give effect to:

- New Zealand Coastal Policy Statement 2010, and Sections 7 and 8 of the Hauraki Gulf Marine Park Act 2000 are deemed to be a New Zealand Coastal Policy Statement
- Electricity Transmission
- Freshwater Management
- Renewable Electricity Generation
- Urban Development Capacity
- Highly Productive Land

The National Policy Statement on Freshwater Management (NPS-FM) is applicable to the proposal. The NPSFM came into force on 3 September. It supersedes earlier versions of the NPSFM.

The NPSFM includes **Te Mana o te Wai** – a concept that “*refers to the fundamental importance of water and recognises that protecting the health of freshwater protects the health and well-being of the wider environment. It protects the mauri of the wai. Te Mana o te Wai is about restoring and preserving the balance between the water, the wider environment, and the community.*”. It encompasses six principles as below:

- *Mana whakahaere*: the power, authority, and obligations of tangata whenua to make decisions that maintain, protect, and sustain the health and well-being of, and their relationship with, freshwater
- *Kaitiakitanga*: the obligation of tangata whenua to preserve, restore, enhance, and sustainably use freshwater for the benefit of present and future generations
- *Manaakitanga*: the process by which tangata whenua show respect, generosity, and care for freshwater and for others
- *Governance*: the responsibility of those with authority for making decisions about freshwater to do so in a way that prioritises the health and well-being of freshwater now and into the future
- *Stewardship*: the obligation of all New Zealanders to manage freshwater in a way that ensures it sustains present and future generations
- *Care and respect*: the responsibility of all New Zealanders to care for freshwater in providing for the health of the nation.

Further, there is a hierarchy of obligations in Te Mana o te Wai that informs the objective of the NPSFM – To ensure that natural and physical resources are managed in a way that prioritises:

- (a) first, the health and well-being of water bodies and freshwater ecosystems
- (b) second, the health needs of people (such as drinking water)

- (c) third, the ability of people and communities to provide for their social, economic, and cultural well-being, now and in the future.

The following table comments on the proposed activities in relation to relevant policies of the NPSFW

<p>Policy 1: Freshwater is managed in a way that gives effect to Te Mana o te Wai.</p>	<p>Policy not met The obligation hierarchy of Te Mana o te Wai prioritises the health and wellbeing of waterbodies and freshwater ecosystems first, and within the Waikato River catchment weaves in the Vision and Strategy for the Waikato River. I have assessed in the AEE that the managed fill proposal does not provide for the restoration of receiving waters.</p>
<p>Policy 2: Tangata whenua are actively involved in freshwater management (including decision making processes), and Māori freshwater values are identified and provided for.</p>	<p>Tangata Whenua are most appropriate to advise whether this policy has been met. Based on a letter from the WWT dated August 2021, I suggest that this policy has not been met.</p>
<p>Policy 3: Freshwater is managed in an integrated way that considers the effects of the use and development of land on a whole-of-catchment basis, including the effects on receiving environments.</p>	<p>Policy not met I consider that the discharges of sediment and contaminants within the managed fill to water will have cumulative effects over the proposed 35 year consent term, and the contaminant concentration limits have not been demonstrated to provide for the restoration of water quality within the catchment.</p>
<p>Policy 6: There is no further loss of extent of natural inland wetlands, their values are protected, and their restoration is promoted.</p>	<p>Policy not met The proposal would result in the net loss of inland wetlands.</p>
<p>Policy 7: The loss of river extent and values is avoided to the extent practicable.</p>	<p>The proposal includes the loss of ephemeral and intermittent water courses.</p>
<p>Policy 9: The habitats of indigenous freshwater species are protected.</p>	<p>The ecological compensation area provides for enhancement and protection of a riparian area.</p> <p>The discharges from the site would not promote the restoration of water quality within the catchment, no improvement to degraded waterways.</p> <p>The discharges from the site are not expected to result in any measurable increase in contaminants within the Waikato River of Lake Puketirini.</p>
<p>Policy 15: Communities are enabled to provide for their social, economic, and cultural wellbeing in a way that is consistent with this National Policy Statement.</p>	<p>Policy Not met. A number of submitters have raised concerns around the health and wellbeing of the Lake Puketirini and Waikato River catchments, restoration of degraded waterways, recreational use of lakes and rivers, mauri of water.</p>

I consider that the proposal is contrary to several policies in the NPSFW as identified in the Table above. It is my view that the ecological compensation offered is not 'like for like' it will not result in the creation of new stream habitat or the creation of new wetlands. I consider that the proposal would result in a net loss of wetlands and waterways, associated net loss of habitat and indigenous biodiversity; and an increase in cumulative contaminant discharges and effects to water quality over the proposed 35 year consent duration.

There are no other National Policy Statements applicable to the proposed activities described in the resource consent application.

6.2.3 Regional Policy Statement

The Waikato Regional Policy Statement (RPS) is operative. The relevant parts of the RPS as it relates to this proposal are as follows:

Objectives

- 3.9 Relationship of tāngata whenua with the environment
- 3.11 Air Quality
- 3.14 Mauri and values of fresh water bodies
- 3.15 Allocation and use of fresh water
- 3.16 Riparian areas and wetlands
- 3.18 Historic and cultural heritage
- 3.19 Ecological integrity and indigenous biodiversity
- 3.25 Values of soil

These are each discussed below.

Objective 3.9 Relationship of tāngata whenua with the environment

The relationship of tāngata whenua with the environment is recognised and provided for, including:

- a. the use and enjoyment of natural and physical resources in accordance with tikanga Māori, including mātauranga Māori; and*
- b. the role of tāngata whenua as kaitiaki.*

I assess the proposal as inconsistent with Objective 3.9. The proposal has been assessed as having minor or more than minor adverse effects to Tangata Whenua Values (refer to the AEE of this report) and inconsistent with the Waikato Tainui Environmental Plan (section 6.3 of this report). I am of the opinion that the proposal does not provide for the role of tangata whenua as kaitiaki.

Objective 3.11 Air Quality

Air quality is managed in a way that:

- a. ensures that where air quality is better than national environmental standards and guidelines for ambient air, any degradation is as low as reasonably achievable;*
- b. avoids unacceptable risks to human health and ecosystems, with high priority placed on achieving compliance with national environmental standards and guidelines for ambient air; and*

- c. *avoids, where practicable, adverse effects on local [amenity values](#) and people's wellbeing including from discharges of particulate matter, smoke, odour, dust and agrichemicals, recognising that it is appropriate that some areas will have a different amenity level to others.*

The recommended conditions of consent include measures to minimise and monitor the discharges of particulate matter from managed fill placement activities prior to rehabilitation. Provided the recommended conditions of consent are adhered to I consider the proposal consistent with Objective 3.11.

Objective 3.14 Mauri and values of fresh water bodies

Maintain or enhance the mauri and identified values of fresh water bodies including by:

- a) maintaining or enhancing the overall quality of freshwater within the region;*
- b) safeguarding ecosystem processes and indigenous species habitats;*
- c) safeguarding the outstanding values of identified outstanding freshwater bodies and the significant values of wetlands;*
- d) safeguarding and improving the life supporting capacity of freshwater bodies where they have been degraded as a result of human activities, with demonstrable progress made by 2030;*
- e) establishing objectives, limits and targets, for freshwater bodies that will determine how they will be managed;*
- f) enabling people to provide for their social, economic and cultural wellbeing and for their health and safety;*
- g) recognising that there will be variable management responses required for different catchments of the region;*
- h) recognising the interrelationship between land use, water quality and water quantity.*

I assess the proposal as inconsistent with Obj 3.14. The proposal would result in a net loss of wetland, net loss of ephemeral and intermittent watercourses and the importation of managed fill and ongoing stormwater discharges would increase the contaminant load within the Waikato River catchment.

Objective 3.15 Allocation and use of fresh water

The allocation and use of fresh water is managed to achieve freshwater objectives (derived from identified values) by:

- a. avoiding any new over-allocation of ground and surface waters;*
- b. seeking to phase out any existing over-allocation of ground and surface water bodies by 31 December 2030;*
- c. increasing efficiency in the allocation and use of water; and*
- d. recognising the social, economic and cultural benefits of water takes and uses.*

It is unclear what volume of water take would be required for any activities on site such as truck wash, dust suppression storage of subsoil drainage water storage in a tank at Fill Area 3. It is unclear what consents would authorise these activities.

The proposal includes pumping subsoil drainage water into a tank prior to releasing the water back into the catchment following testing and treatment. With regard to this activity, a recommended condition of consent is that the water take will be a net zero take. Provided the water take is a net zero take I consider that the proposal will not be contrary to objective 3.15.

Objective 3.16 Riparian areas and wetlands

Riparian areas (including coastal dunes) and wetlands are managed to:

- a. maintain and enhance:*
 - i. public access; and*

- ii. amenity values.
- b. maintain or enhance:
 - i. water quality;
 - ii. indigenous biodiversity;
 - iii. natural hazard risk reduction;
 - iv. cultural values;
 - v. riparian habitat quality and extent; and
 - vi. wetland quality and extent.

I assess the proposal as inconsistent with Obj 3.16 (b). The proposal would result in a net loss of wetland areas, ephemeral, intermittent watercourses and the indigenous biodiversity within these habitats (obj 3.16 ii, v & vi). The ecological compensation is not like for like it does not include the creation of new wetland or watercourses.

Objective 3.19 Ecological integrity and indigenous biodiversity

The full range of ecosystem types, their extent and the indigenous biodiversity that those ecosystems can support exist in a healthy and functional state.

Full range of ecosystem types – the nine broad ecosystem types that occur in the Waikato region:

1. a) native forest and scrub;
2. b) swamps and bogs;
3. c) streams, rivers and lakes;
4. d) beaches and dunes;
5. e) marine and estuarine ecosystems;
6. f) coastal islands;
7. g) geothermal ecosystems;
8. h) karst ecosystems; and
9. i) high mountain lands.

I assess the proposal as inconsistent with Obj 3.19. The proposal would result in a net loss of wetland habitat, ephemeral and intermittent watercourses and indigenous biodiversity. There remains uncertainty about the extent of wetland which would be impacted by the proposal.

Objective 3.18 Historic and cultural heritage

Sites, [structures](#), landscapes, areas or places of [historic and cultural heritage](#) are protected, maintained or enhanced in order to retain the identity and integrity of the Waikato region's and New Zealand's history and culture.

There are no recorded archaeological sites within the subject site. The recommended conditions of consent will ensure that appropriate protocols are followed in the event of accidental archaeological discovery to ensure the preservation of historic and cultural heritage.

The placement of approximately 2,000,000 million cubic metres of fill within the three gullies would change the physical characteristic of the landscape. The site is within the Waikato River catchment which is of significance to iwi. There have been no written approvals given by tangata whenua and I am not aware of any communications that indicate support for the proposal. Taking all of the above into consideration, I consider that overall the proposal is inconsistent with obj 3.18.

I note that the assessment of cultural heritage and landscapes would be best led by tangata whenua. On this basis, my opinion might change should tangata whenua provide advice or comments.

Objective 3.25 Values of soil

The soil resource is managed to safeguard its life supporting capacity, for the existing and foreseeable range of uses.

The topsoil from stripping will be stockpiled for use during the rehabilitation stage. Completed managed fill areas would be progressively rehabilitated consistent with current land use. I consider the proposal is consistent with obj 3.25 Values of Soils.

6.2.4 Regional Plan

The Waikato Regional Plan (WRP) is operative. The purpose of regional plans is to help the Council carry out its functions under s30 of the RMA. Section 2 of this report sets out the plan rules and activity status for the activities applied for.

The key WRP provisions are as follows:

- Section 3 - Water Module; Chapter 3.2 – Management of Water Resources
- Section 5 - Land and Soil Module; Chapter 5.1 – Accelerated Erosion
- Section 6 – Air Module; Chapter 6.1 - Regional and Local Air Management

In assessing this application I have given regard to the objectives and policies of the relevant sections of the WRP.

As discussed in the AEE, additional consents might be required for the water take – pumping water into a tank at Fill Area 3. As well as for the discharge of treated runoff from the acid sulphate soil pad to the quarry pit pond and for irrigation of Fill 3 subsoil drainage water to land (if the applicant choose this disposal method).

Bundled Activity Status

The managed fill proposal requires consent for numerous activities which are all required and integral for the operation/overall managed fill activity. The activities overlap to an extent that the activities and the effects of the activities cannot be practically separated. Bundled activities are assessed as a whole and the most stringent activity status applied.

In this case the application has been bundled to non-complying activity status s104D RMA.

S104D Gateway Test

The application triggers non-complying activity rule NESF Regulation 54(c) The taking, use, damming, diversion, or discharge of water within, or within a 100 m setback from, a natural wetland.

The proposal might trigger WRP rule 3.5.4.6 – Non-Complying Activity Rule – Discharges into other Water Bodies, dependent on site preparation methodology. This rule would be applicable should the applicant discharge contaminants such as managed fill into wetlands. The applicant argues that the wetlands within the fill sites would be destroyed prior to the discharge of fill and therefore consider the rule is not applicable.

The RMA specifies particular restrictions for non-complying activities. Should the application be granted, the decision maker must be satisfied that either the adverse effects of the activity on the environment will be minor (s104D(1)(a)), or the proposed activity will not be contrary to the objectives and policies of a proposed plan and/or plan (s104D(1)(b)).

It has been established in this report that the proposal is contrary to the policy, plan and regulation assessments and that the adverse effects of the proposal are likely to be more than minor to tangata whenua values and ecological values. I consider that neither pathway of s104D has been met.

6.2.5 Waikato Regional Plan Change 1 - Waikato and Waipa River Catchments

The proposed Waikato Regional Plan Change 1 (PWRP – Change 1) is applicable to the Waikato and Waipa River catchments and gives effect to the National Policy Statement on Freshwater Management (NPS-FM) and the Vision and Strategy. The PWRP – Change 1 was notified on the 22 October 2016. The purpose of the proposed plan change is to reduce point source and non-point sources of contaminants – nitrogen, phosphorus, sediment and bacteria - entering waterbodies (including groundwater) within the Waikato and Waipa River catchments.

Of the four contaminants listed – nitrogen, phosphorus, sediment and bacteria – I consider that only sediment discharges are likely to be inconsistent with the objectives of Plan Change 1.

The proposal is within the Waikato River Catchment. The proposal is not anticipated to have any measurable effect on water quality within the Waikato River and Lake Puketirini.

I have recommended suite of conditions to monitor sediment discharges, sediment retention pond efficiency and to quantify annual sediment yield.

There remains uncertainty within the application as to how the applicant will quantify sediment yield and whether there is a trigger level for undertaking additional compensation should sediment yield exceed XX volume per annum. Without this information I consider that it is likely the fill sites will discharge a higher level of sediment than background levels and will be inconsistent with the plan to reduce sediment discharges within the Waikato River catchment.

6.3 Waikato-Tainui Environmental Plan (WTEP)

The Waikato-Tainui Environmental Plan provides a background to, and identifies key, resource based issues for Waikato-Tainui. The plan sets out Waikato-Tainui vision statement for environmental and heritage issues and key strategic objectives such as tribal identity and integrity, including “to grow our tribal estate and manage our natural resources.” The plan is designed to enhance Waikato-Tainui participation in resource and environmental management.

I consider that the proposed wetland loss is inconsistent with the WTEP. Section 20 of the WTEP details the importance of wetlands, their water attenuation and ecological functions and services, and importance to iwi. Objective 20.3.1 states ‘*existing wetlands are protected and enhanced*’. The proposal will result in a net loss of wetland areas which I assess to be inconsistent with section 20 of the WTEP.

The Vision and Strategy for the Waikato River and it’s purpose “restore and protect the health and wellbeing of the Waikato River for future generations” forms a key part of the WTEP. I have assessed the application as inconsistent with the Vision and Strategy, refer to section 6.4 of this report. Accordingly, I consider the proposal inconsistent with the WTEP.

There is potential for the importation of 2,000,000m³ of managed fill and the associated discharges of contaminants within the Waikato River catchment to adversely effect the following customary activities:

- WTEP section 14.1.7: “*Waioranga – the use of water bodies (fresh and marine water) for customary practices relating to the physical health and wellbeing of persons including bathing and cleansing. This also includes other rivers and places where similar activities are undertaken.*”
- WTEP section 14.1.8: “*Wairua – the use of water bodies (fresh and marine water) customary practices relating to the spiritual and cultural health and wellbeing of people and the tribe.*”

I consider the 35 year consent term sought is contrary to Section 8.4.1 of the WTEP. Section 8.4.1 encourages a precautionary approach to consent terms where the activity may adversely effect the social, economic, cultural, spiritual or environmental wellbeing of Waikato-Tainui.

As discussed in the AEE the managed fill activity would change the physical landscape, and introduce a new contaminant load to the catchment which would have ongoing discharges of stormwater and subsoil drainage water to the Waikato River.

Waikato Tainui have not given any written approvals for the application and have not lodged any submission to the WRC on the application.

I have assessed the application as contrary to the objectives and outcomes within the WTEP. My opinion might change if tangata whenua were to provide comment or assessment in support of the proposal.

6.4 Waikato-Tainui Raupatu (Waikato River) Settlement Claims Act 2010

6.4.1 Vision and strategy

As of 24 September 2010 Waikato Regional Council, in addition to any requirement specified in the RMA, must have particular regard to the vision and strategy (Schedule 2 of the Settlement Claims Act). These Acts apply to applications relating to the Waikato River; or activities in the catchment that affect the Waikato River.

The Waikato-Tainui Raupatu Claims (Waikato River) Settlement Act 2010 was enacted in May 2010 with the purpose of implementing co-management of the Waikato River. The overarching purpose of the Act is to restore and protect the health and wellbeing of the Waikato River for future generations. Through this piece of legislation it is intended to implement the “Vision and Strategy” for the River and consequently aims to meet the objectives of Waikato Tainui for the Waikato River through:

- a) the restoration and protection of the health and wellbeing of the Waikato River;
- b) the restoration and protection of the relationship of Waikato – Tainui with the Waikato River, including their economic, social, cultural and spiritual relationships;
- c) the restoration and protection of the relationships of Waikato Iwi according to their tikanga and kawa with the Waikato River, including their economic, social, cultural and spiritual relationships;
- d) the restoration and protection of the Waikato Region’s communities, with the Waikato River, including their economic, social, cultural and spiritual relationships;
- e) the integrated, holistic and coordinated approach to management of the natural, physical, cultural and historic resources of the Waikato River;
- f) the adoption of a precautionary approach towards decision that may result in significant adverse effects on the Waikato River, and in particular those effects that threaten serious or irreversible damage to the River;
- g) The recognition and avoidance of adverse cumulative effects, of activities undertaken both within the Waikato River and within its catchments on the health and wellbeing of the Waikato River;
- h) The recognition that the Waikato River is degraded and should not be required to absorb further degradation as a result of human activities;
- i) The protection and enhancement of significant sites, fisheries, flora and fauna;
- j) The recognition that the strategic importance of the Waikato River to New Zealand’s social, cultural, environmental and economic wellbeing, requires the restoration and protection of the health and wellbeing of the Waikato River;

- k) The restoration of water quality within the Waikato River so that it is safe for people to swim in and take food from over its entire length;
- l) The promotion of improved access to the Waikato River to better enable sporting, recreational, and cultural opportunities;
- m) The application of the above of both matauranga Maori and the latest available scientific methods.

The vision and strategy forms part of the Proposed Waikato Regional Policy Statement and is given effect through the plans administered by Regional and territorial authorities along the river. The settlement also provides for joint management agreements between Waikato-Tainui and the local authorities; participation in river-related resource consent decision-making; recognition of a Waikato-Tainui environmental plan; provision for regulations relating to fisheries and other matters managed under conservation legislation and an integrated river management plan.

The proposed fill sites are within the Waikato River catchment. Treated stormwater and subsoil drainage water from Fill Areas 3 and 4 will drain into a tributary of the Waikato River. Stormwater and subsoil drainage water from Fill Area 2 will drain into a tributary of Lake Puketirini.

It has been assessed in the AEE for the discharges of contaminants to land and water that the managed fill operation would not be expected to result in a measurable change in water quality within Lake Puketirini or the Waikato river. This assessment takes into account background levels of contaminant concentrations within the receiving waterways and the dilution of the managed fill discharges.

As discussed in the s107 RMA assessment, section 6.6 below, the receiving waterways are degraded and baseline water quality data provided by EHS at sampling site DS2 which is in the unnamed tributary of the Waikato River below Fill Area 3 and 4 indicates elevated concentrations of dissolved zinc, aluminium and chromium. Discharges from the managed fill operation would add additional contaminants to the receiving waterways, including the same contaminants identified as already being elevated and additional contaminants listed in the Fill Management Plan fill acceptance criteria, and sediment. The proposal does not provide for restoration of water quality within the Waikato River catchment and would authorise the continued degradation of the waterways equivalent to current baseline water quality levels for the duration of the consents. The applicant seeks 35 year consent terms, discharges over this period would have a cumulative effect from the ongoing discharge of contaminants to wetlands and waterways below the fill sites.

The applicant's AEE and proposed discharge criteria does not recognise that the Waikato River is degraded and should not be required to absorb further degradation as a result of human activities (objective h, above).

The proposal would result in a net loss of wetland at FA2 of 570m², FA4 484m², possible remnant wetland loss at FA3 additional to the previous unauthorised loss of at least FA3 815m². The wetland water attenuation and treatment functions have not been compensated for and the proposal does not offer the creation of any new wetland. The compensation is not like for like. Due to a net loss of wetland areas, the proposal would result in a permanent and ongoing net loss of water attenuation and treatment capacity within the catchment.

I have had particular regard for the Vision and Strategy for the Waikato River. I am of the opinion the proposal is contrary to the matters listed a – m above, particularly:

h) The recognition that the Waikato River is degraded and should not be required to absorb further degradation as a result of human activities;

j) *The recognition that the strategic importance of the Waikato River to New Zealand's social, cultural, environmental and economic wellbeing, requires the restoration and protection of the health and wellbeing of the Waikato River;*

k) *The restoration of water quality within the Waikato River so that it is safe for people to swim in and take food from over its entire length;*

The proposal does not recognise that the Waikato River is degraded and should not be required to absorb further degradation as a result of human activities; and, the proposal does not support the restoration and protection of the health and wellbeing of the Waikato River.

The Environment Court Decision *Puke Coal Ltd. V Waikato Regional Council* is relevant to resource consent applications within the Waikato River Catchment subject to the Vision and Strategy, including this application. My understanding of the Environment Court Decision is that for the resource consent application to meet the Vision and Strategy, the application must demonstrate that the activities will result in a net benefit to the Waikato River catchment, proportionate to the effects of the proposal.

For the reasons set out above I consider that the proposal would result in a net loss to water quality values within the Waikato River catchment and is inconsistent with the Vision and Strategy.

No written approvals have been given by any iwi group.

6.4.2 Customary activities

S58(3) of the Waikato-Tainui Act 2010 requires the consent authority to ensure that the granting of consent does not cause the prevention of, or significant adverse effect on, a notified customary activity.

I have reviewed the Customary Activities Section of the Waikato Tainui Environmental Plan. Of the activities listed I consider that the introduction of 2,000,000m³ of managed fill and the associated stormwater discharges within the Waikato River catchment could potentially impact the following two customary activities:

WTEP section 14.1.7: *“Waioranga – the use of water bodies (fresh and marine water) for customary practices relating to the physical health and wellbeing of persons including bathing and cleansing. This also includes other rivers and places where similar activities are undertaken.”*

WTEP section 14.1.8: *“Wairua – the use of water bodies (fresh and marine water) customary practices relating to the spiritual and cultural health and wellbeing of people and the tribe.”*

6.5 Section 105 and 107 Matters

Section 105(1) of the RMA outlines additional matters that must be taken into regard for a discharge to water or land which contravenes section 15 of the RMA.

105Matters relevant to certain applications

(1) If an application is for a discharge permit or coastal permit to do something that would contravene section 15 or section 15B, the consent authority must, in addition to the matters in section 104(1), have regard to—

- (a) the nature of the discharge and the sensitivity of the receiving environment to adverse effects; and*
- (b) the applicant's reasons for the proposed choice; and*
- (c) any possible alternative methods of discharge, including discharge into any other receiving environment.*

(2) If an application is for a resource consent for a reclamation, the consent authority must, in addition to the matters in section 104(1), consider whether an esplanade reserve or esplanade strip is appropriate and, if so, impose a condition under section 108(2)(g) on the resource consent.

Fill Areas 3 and 4 will discharge overland via an ephemeral watercourse that discharges into an unnamed stream prior to flowing into Waikato River. Fill Area 2 will discharge into unnamed tributary within the Lake Puketirini catchment.

There remains some uncertainty around the extent of wetland habitat below the fill sites which will receive runoff from the manage fill areas. From my experience walking over the sites, there are patches of wetland directly below all three fill areas. On 13 July 2022 the applicant applied for an additional activity of stormwater discharges to a natural wetland under Regulation 54 NESF for a non-complying activity. The application assesses that *'The discharge points from the sediment retention ponds that will service FA3 and FA4 are at the nearest point 35m (approximately) from identified natural inland (induced) wetlands.'*

The RPS recognises that the Waikato River water quality is degraded and aims to restore and protect waterways within the Waikato River catchment (Vision and Strategy). The maximum consent durations are sought for all whole suite of consents, 35 years. I consider that there would be cumulative effects of sediment and managed fill contaminant discharges over this consent term. The nature of the discharge and specific contaminants is discussed in Dr Caldwell's Technical Assessment of contaminant discharges to land and water, Appendix 3 to this report. Baseline water quality data provided by EHS at sampling site DS2 which is in the unnamed tributary of the Waikato River below Fill Area 3 and 4 indicates elevated concentrations of dissolved zinc, aluminium and chromium. In my opinion the elevated concentrations of the contaminants increases the sensitivity of the receiving environment for any additional discharge of the respective contaminant from the fill operation.

Section 105 requires that the consent authority must have regard to any possible alternative methods for discharge, including discharge into any other receiving environments. The proposal will add contaminants to the tributaries within the Waikato River catchment. There is no functional need for the fill activity to occur in this particular environment, there are likely more suitably environments such as sites which discharge to land and are located a greater distance from wetlands and water bodies, or end of life quarry pits.

Based on the above reasons I assess the proposal is inconsistent with s105(a) due to the sensitivity of the receiving environment (degraded waterways and natural wetlands) and the nature of the discharge (the fill is anticipated to discharge the same contaminants to waterways which already have elevated concentrations of those contaminants) and inconsistent with s105(c) due to there being no functional need for the activity to be at this location with the respective sensitivity of receiving environments.

Section 107 of the RMA outlines restrictions on the granting of discharges to water or land if it is likely to give rise to all or any of the following effects in the receiving waters;

- c. the production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials:
- d. any conspicuous change in the colour or visual clarity:
- e. any emission of objectionable odour:
- f. the rendering of fresh water unsuitable for consumption by farm animals:
- g. any significant adverse effects on aquatic life

On the basis of the assessment of effects and recommended conditions, it is not considered that the proposed treated stormwater discharge and the discharge of managed fill and cleanfill to land will result in the above effects after reasonable mixing with receiving waters; and the discharges from the site are not expected to result in a measurable change in water quality within Lake Puketerini or the Waikato river.

6.6 Relevant Part 2 Considerations

Section 104 of the RMA is subject to Part 2 of the Act:

- Section 5 of the RMA outlines the Act's purpose, the basic principle of which is sustainable management.
- Section 6 of the RMA outlines matters of national importance.
- Section 7 outlines the other matters for consideration.
- Section 8 concerns the principles of the Treaty of Waitangi.

I have established in the AEE of this report that there is a potential adverse effect to tangata whenua in terms of the matters addressed in s6(e) and 7(a) RMA. Furthermore, the proposal does not adequately compensate for wetland loss, quantify sediment discharges and does not provide for the restoration of the Waikato River catchment.

Overall, the application is considered to have inconsistencies with relevant provisions of Part 2 of the RMA and the proposal is not likely to achieve the purpose (section 5) of the RMA, being the sustainable management of natural and physical resources.

7 Discussion and Recommendations

The application has been assessed as a non-complying activity under the NES Freshwater and is therefore determined in accordance with section 104 and 104D of the RMA. In considering the subject resource consent application the main potential environmental effects associated with the proposed works have been identified as follows;

- Land Stability Effects
- Discharges to Air
- Discharge of contaminants to land and water
- Erosion and Sediment Discharges
- Stormwater Effects
- Ecological Effects
- Effects to Tangata Whenua Values
- Effects in the event of Site Abandonment

Section 6.1 of this report assesses the actual and potential environmental effects of the proposal. For the reasons outlined in section 6.1, I consider that the proposal would likely result in more than minor adverse effects to the environment. Of particular concern is the potential adverse effects to ecological values, discharges of contaminants to surface water, and the potential adverse effects to tangata whenua values.

Should consent be granted, the report assessments arrive at several recommendations and provide a set of recommended conditions (Appendix 8). The recommendations include:

- Increased frequency and duration of surface water quality monitoring.
- Imposing water quality criteria and managed fill acceptance criteria that will ensure any discharges are not contrary to the objective of restoring water quality within the Waikato River catchment.
- A groundwater monitoring framework is developed and added to the condition schedule.
- Regular independent SQEP monitoring of the managed fill sites and end of life verification sampling of each fill site prior to capping.

- Marine sediments are not accepted at the fill sites and only lime stabilised Acid Sulphate Soil is accepted following expert review/certification.
- Increased ecological compensation that is additional to any other ecological enhancement work requirements.
- Ecological compensation that is like for like, including the creation of new wetland at no less than a 1:1 ratio.
- Establishment of a Community Liaison Group (CLG)
- Provision of environmental monitoring outcomes and data to the CLG
- An updated rehabilitation bond quantum assessment
- Consent durations of no more than 10-15 years
- The applicant to clarify the source and volume of water available for activities on site e.g. truck wheel wash and dust suppression and what resource consent (if required) would authorise the activity.

The overall proposal has been assessed in respect to their consistency with the objectives and policies of the Regional Council's policies and plans, and the statutory provisions of the RMA. I have assessed in this report that the proposal is inconsistent with the RPS, NPSFM, Part 2 RMA and s105 RMA.

The submissions on the application raised concerns about amenity values and community wellbeing. I note that a number of such issues have not been addressed to my satisfaction. I would encourage the applicant to address these concerns through the district land use consent and the Huntly Community Board.

7.1 Recommended Decision

The application has been bundled and assessed as a non-complying activity and is therefore determined in accordance with section 104 and 104D of the RMA.

The proposal has been considered in terms of the environmental effects, the Waikato Regional Council's policies and plan's, the provisions of the Resource Management Act 1991 and relevant regulations.

For the reasons set out in this report, I recommend that in accordance with s104D, the resource consent application be declined in full for the following reasons:

- The activities will have more than minor actual or potential adverse effects on the environment
- The activities are contrary to the objectives, policies and regulations identified in section 6.2 of this report
- The activities are inconsistent with the purpose and principles of the Resource Management Act 1991

My opinion might change following consideration of any new information presented by the applicant or the technical experts, and in the event that additional ecological compensation is offered and a clear net benefit to the Waikato River catchment is demonstrated.

7.2 Consent Duration

The applicant has requested 35 year consent durations for the full suite of consents sought. Objective 1.2.4 – Policy 6 of the Plan specifically provides for the applicants requested duration unless an assessment determines otherwise.

Should consent be granted I recommend consent durations of between 10 and 15 years for all of the consents sought other than the stream reclamation consent which I recommend an unlimited consent

duration is applied in accordance with s123 RMA. The reasons for the recommended durations are as follows.

Consent durations are considered case by case and discharges to the environment usually receive the shortest durations. The level of certainty around the effects or sustainability of the activity are key factors in determining consent durations.

I also recognise that understanding of environmental effects, best practice management and monitoring changes over time. Environmental assessments, contaminant guidelines and conditions are continually being revised and improved for landfill discharge activities. The way we have assessed the activity today will be different to how the activity would be assessed in 10 plus years time.

I have discussed in the AEE that there is uncertainty with different aspects of the proposal. Including unconfirmed contaminant trigger limits; with quantifying sediment yield/discharges; disposal methods for fill 3 subsoil drainage water; disposal methods for acid sulphate soil (ASS) leachate if ASS is received that has not been lime stabilised; quantifying and compensating ecological effects; the effects of climate change/severe weather events impacts on stormwater infrastructure, site stability, discharge treatment; and, uncertainty with a large amount of detail being contained in several draft management plans which have questionable enforceability and are subject to ongoing changes/approvals.

There remains uncertainty with the extent of wetland which would be impacted and lost. The ecological compensation offered would likely result in a net loss to biological diversity and habitats. The cumulative effects of discharges and annual sediment yields remain uncertain and not compensated for.

The proposal indicates that up to 300,000m³ of fill would be imported each year. I consider that 10 – 15 year consent durations gives appropriate regard to the infrastructure capital expenditure and is an adequate time to complete the 2,000,000m³ capacity operation and rehabilitate the site. As well as provide for any ups and downs in markets and corresponding fill importation rates.

The proposal has been assessed as inconsistent with the RPS, NPSFM, Part 2 RMA and s105 RMA.

I consider that tangata whenua will likely be adversely affected to a minor or more than minor level. I have had regard to section 8.4 Precautionary Approach – Consent Terms of the Waikato Tainui Environmental Plan (WTEP). I have assessed the application as inconsistent with the WTEP.

As noted in the discussion above, I recommend that the application is declined in full. However, should consent be granted I recommend that the consent durations do not exceed 15 years for all of the activities sought, other than the stream reclamation activity which I recommend an unlimited consent duration due to the permanent nature of the activity.

8 Conditions

Should consent be granted I have drafted a suite of recommended consent conditions, refer to Appendix 8.

I note that there are gaps in the recommended conditions which require technical assessment for:

- Water quality and fill acceptance trigger limits to ensure any discharges will contribute to the restoration of the Waikato River catchment.
- Details of a groundwater monitoring framework as recommended in Mr Tim Baker's groundwater technical assessment.
- An updated ecological compensation table.

Condition Review s128 RMA

I have included a review condition in the event that it is determined through monitoring that more than minor effects are generated, or to review the effectiveness or adequacy of consent conditions. I have recommended a review frequency of once every two years for the consents, if required.

9 Appendices

1. Summary of Submissions
2. Geotechnical Peer Review - Huntly Quarry 2022 Managed Fill Application, prepared by Baseline Geotechnical, dated 7 June 2022.
3. Managed Fill Discharges Peer Review - Technical Assessment of contaminant discharges to land and water – Gleeson's Managed Fill, updated 14 November 2022, prepared by Dr Jonathan Caldwell, Senior Scientist for the WRC.
4. Ecology Peer Review - Letter titled 'Re: Gleeson and Cox Fill Consent Application: Wetland Ecological Effects', prepared by Karen Denyer, Principal Ecologist, Papawera Geological Consulting, dated 31 October 2022.
5. Air Discharge Peer Review - *Technical Assessment of Air Discharges, Gleeson's Managed Fill*, dated 9 August 2022, prepared by Dr Jonathan Caldwell, Senior Scientist for the WRC.
6. Groundwater Peer Review - Technical Review of Groundwater Effects, dated 10 June 2022, prepared by Tim Baker, SLR.
7. Erosion and Sediment Control AEE Review, dated 30 June 2022, prepared by Joshua Evans, Resource Officer for the WRC.
8. Recommended Conditions of Consent

WAIKATO REGIONAL COUNCIL

S42A Report

Appendix 1

Summary of Submissions

Summary of Submissions for APP144475, Gleeson Managed Fill

Table 1: Summary of Submissions

Submission No. /Name of Submitter / WRC doc no. for submission	Oppose, Support or Neutral	Concerns/Comments <u>Regional Effects Underlined</u>	Regional Concerns Addressed?	Submission Made to WRC? Wish to be heard?
1. Maree Frances Rutherford (24492374)	Oppose	<ul style="list-style-type: none"> • <u>Discharge of contaminants to land, water air</u> • Odour • <u>Potential adverse effects Lake Puketirini</u> • Potential adverse effects to property values in the vicinity • Visual effects 	Addressed in part. Refer to Table 2 below.	WRC Form Yes, wish to be heard
2. Wayne Robert Rutherford (24492374)	Oppose	<ul style="list-style-type: none"> • <u>Potential adverse effects Lake Puketirini</u> and its recreational values • <u>Runoff from the fill site</u> • Risks of unknown future effects 	Addressed in part. Refer to Table 2 below.	WRC Form Yes, wish to be heard
3. Denise Phyllis Lamb (24500249)	Oppose	<ul style="list-style-type: none"> • <u>Potential adverse effects to Lake Puketirini, water quality, recreational values, wildlife.</u> • Potential for fill to contain contaminants in non-compliance with the regulations. • <u>Discharge of contaminants to water.</u> • <u>Dust</u> • Odour • Mud dragged on to the road from trucks • <u>Water use for washing the road pooling near the river</u> • Lack of consultation • Track record of not abiding by rules • Traffic safety concerns for pedestrians and cyclists, need footpaths and wider roads 	Addressed in part. Refer to Table 2 below.	WRC Form Yes, wish to be heard

		<ul style="list-style-type: none"> • Materials fall off trucks • Damage to roads 		
4. Dorothy CLAIRES Molloy (24500929)	Oppose	<ul style="list-style-type: none"> • <u>Possible leaching of contaminants into Lake Puketirini, possible loss of recreational values of the lake.</u> 	Addressed in part. Refer to Table 2 below.	WRC Form No , does not wish to be heard
5. Kate Thomas (24509990)	Oppose	<ul style="list-style-type: none"> • Adverse effects to health and wellbeing, physically and mentally • <u>Dust</u> • Odour • Noise • Changes to the landscape • <u>Leaching of contaminants into waterways</u> • <u>Adverse effects to aquatic ecology and observed giant kokopu in receiving waterway.</u> • Adverse effects to terrestrial ecology, loss of roost trees, and habitat for bats, herons. • <u>The compensation may not be additional to other regulations that require farms to fence waterways and wetlands.</u> • Risks associated with possible poor operation of fill sites and lack of monitoring 	Addressed in part. Refer to Table 2. Agree that aspects of the ecological compensation package could overlap with stock exclusion regulations and may not be considered 'additional' compensation.	Submission by letter Yes , wish to be heard
6. Norman Hill & Hill Whaanau (24515256)	Oppose	<ul style="list-style-type: none"> • <u>Major adverse effects on landscape and cultural values</u> • <u>Adverse effects to aquatic life</u> • <u>Potential effects on geology</u> • <u>Potential adverse effects to water quality which is linked to Health and wellbeing of mana whenua</u> • Noise • Health and nuisance effects 	Addressed in part. Refer to Table 2 below. Agree that the potential effects to cultural values have not been adequately addressed in the application and that there is risk of adverse effects.	Submission by Letter Yes , wish to be heard

7. Alan & Bronwyn Kosoof (24521902)	Oppose	<ul style="list-style-type: none"> • <u>Discharge effects to receiving waterways, Waikato River and Lake Puketirini</u> • Proximity of site to Huntly residential area, Lake Puketirini, Waikato River • Adverse effects to Lake Puketirini recreational values • Support the WWT letter dated 31 August 2021 which sets out reasons for opposing previous Fill 3 application. • <u>Specific objection to Fill 2 because discharges from the fill site are above and within the Lake Puketirini catchment.</u> • <u>Risk of major adverse event which could cause discharges of contaminants into Lake Puketirini</u> • Lack of financial liability if a major adverse event occurs 	Addressed in part. Refer to Table 2 below.	WRC Form Yes , wish to be heard
8. Appollonia Johnston (24522091)	Oppose	<ul style="list-style-type: none"> • Adverse effects to quality of life and wellbeing • <u>Discharge of contaminants to air, including potential for particulate matter to contaminate drinking water from roof collection.</u> • Trucks dragging mud on to the road • Health risks associated with possible asbestos exposure • <u>Risk of extreme weather event and fill site failure</u> • Noise and vibration of trucks 	Addressed in part. Refer to Table 2 below.	WRC Form No , does not wish to be heard
9. Jennifer Lee Molloy (24523268)	Oppose	<ul style="list-style-type: none"> • <u>Discharge of contaminants to water and to Lake Puketirini, in particular discharges from acid sulphate soils</u> • <u>Adverse effects to flora and fauna</u> • Proximity to residential subdivision development which is underway • Damage to roads from trucks • Debris and filth on roads from trucks 	Addressed in part. Refer to Table 2 below.	WRC Form No , does not wish to be heard
10. Cyril & Marion Shanley (24523955)	Oppose	<ul style="list-style-type: none"> • <u>Instability of fil sites</u> • <u>Sediment discharges to waterways</u> • <u>Risks of a landfills located above Lake Puketirini and the Waikato River</u> • Company history of not complying with the RMA 	Addressed in part. Refer to Table 2 below.	WRC Form No , does not wish to be heard

11. Kevin Wickens (24524854)	Oppose	<ul style="list-style-type: none"> • Speed of trucks, dust, vibrations, noise • Cartage of contaminants through residential area • Damage to road • Long term health disruptions 	Largely district issues to be addressed through land use consent.	WRC Form Yes , wish to be heard
12. Director-General of Conservation (24526113)	Oppose	<ul style="list-style-type: none"> • <u>Adverse effects to aquatic and terrestrial fauna, including threatened species.</u> • <u>Loss of habitat</u> • <u>Loss of gully systems, wetlands and ephemeral and intermittent streams</u> • <u>Incomplete Ecological Impact Assessment</u> • <u>Sedimentation of waterways</u> • <u>The 35 year consent duration sought is unreasonable, does not account for cumulative effects or future changes to planning legislation</u> • <u>Uncertainty of proposal, significant reliance on unconfirmed conditions and management plans</u> • <u>Need for consistency with Wildlife Act 1953</u> 	<p>I consider that the applicant's AEE ecology is outdated (does not reflect changes at FA3) and that there are gaps in the applicant's conditions for ecological effects mgmt., ecological compensation, and that the ecological compensation offered is inadequate.</p> <p>I have recommended shorter consent durations 10 – 15 years.</p> <p>Conditions of consent have been recommended to increase and add certainty to ecological compensation and protection of native fish, bats and lizards (Schedule 1, Condition 20 - 27).</p>	Submission by letter Yes , wish to be heard
13. Garry & Audrey Cox (24529733)	Oppose	<ul style="list-style-type: none"> • <u>Discharges of contaminants to the Waikato River and to Lake Puketirini</u> • <u>Dust Discharges</u> • Risk of non-compliances • Bond • Adverse effects to property values • Trucks, traffic safety concerns • Liability of company if rules breached? • Dust from trucks • Trucks cause vibrations that shake houses • Damage to roads 	Addressed in part. Refer to Table 2 below.	WRC Form No , does not wish to be heard

14. Clive & Pauline Kosoof (24530819)	Oppose	<ul style="list-style-type: none"> • <u>Concerned re proximity of fill sites to Waikato River and Lake Puketirini</u> • <u>Discharge of contaminants</u> • Track record of company issues of non-compliances and unlawful wetland drainage • Distrust in company 	Addressed in part. Refer to Table 2 below.	WRC Form No , does not wish to be heard
15. Daisy Kate Thomas	Oppose	<ul style="list-style-type: none"> • <u>Potential adverse effects to neighbours, wildlife, water, air, environment.</u> • Concerns re morals of company • Residential amenity values 	Addressed in part. Refer to Table 2 below.	WRC Form Yes , wish to be heard
16. Emily Joy Thomas (24531333)	Oppose	<ul style="list-style-type: none"> • <u>Dust</u> • Odour • <u>Adverse impacts to water, air, Lake Puketirini, residents</u> • Noise • Disrespectful attitude of company 	Addressed in part. Refer to Table 2 below.	WRC Form Yes , wish to be heard
17. Colleen Earby (24531874)	Oppose	<ul style="list-style-type: none"> • <u>Pollution from landfill and arsenic leaching to soil and water.</u> • Risks of asbestos • Potential adverse effects to recreational values of Lake Puketirini • Public availability of air and water monitoring records • Trucks – noise, road repairs, rubbish blown off trucks, increase in number of truck movements 	Addressed in part. Refer to Table 2 below.	WRC Form No , does not wish to be heard
18. Nola Daw Morland (24531878)	Oppose	<ul style="list-style-type: none"> • <u>Close proximity of fill sites to lake and waterways</u> • <u>Displacement of fauna and flora</u> • Road use, truck traffic, noise • Not of benefit to the community 	Addressed in part. Refer to Table 2 below.	WRC Form No , does not wish to be heard
19. Haylene Aroha Himona (24532074)	Neutral	<ul style="list-style-type: none"> • Hours of operation • Truck movements • Damage to roads and Tainui Bridge 	Addressed in part. Refer to Table 2 below.	WRC Form Yes , wish to be heard

20. Jessica Rix (24532184)	Oppose	<ul style="list-style-type: none"> • Recreational values of Lake Puketirini • Past issues of non-compliance associated with the site/applicant • <u>Dust</u> • Increase of trucks, noise and vibrations 		WRC Form Yes, wish to be heard
21. Nicola Vitasovich (24532718)	Oppose	<ul style="list-style-type: none"> • <u>Adverse effects to fauna and flora</u> • <u>Loss of wetlands</u> • <u>Potential impacts to lake, surrounds and enjoyment of area</u> • Changes to the landscape • Social and cultural wellbeing 	Addressed in part. Refer to Table 2 below.	WRC Form Yes, wish to be heard
22. Kathie Shepard (24532770)	Oppose	<ul style="list-style-type: none"> • <u>Changes to natural water flows from earthworks</u> • <u>Adverse effects to the environment from importing fill</u> • <u>Dust</u> • <u>Risks to bats</u> • Hours of operation • Little or no benefit to local community, detrimental effects • Increased trucks on road, contributing to damaged condition of roads • Vegetation removal • Applicant's track record of consent non-compliance and potential for continued non-compliances in the future • 	Addressed in part. Refer to Table 2 below. A bat management plan has been included within the recommended conditions of consent.	WRC Form Yes, wish to be heard
23. Bryce & Carla Mounsey (24532879)	Oppose	<ul style="list-style-type: none"> • Past non-compliances at the site • <u>Adverse effects to land, air and water</u> • Truck movements will impact wellbeing of residents, and associated noise and dust. 	Addressed in part. Refer to Table 2 below.	WRC Form Yes, wish to be heard
24. Andrew Parkin & Leanne Ralph (24532882)	Oppose	<ul style="list-style-type: none"> • Risk to recreational values of Lake Puketirini • Needs of the community in the long term need to take precedence over short term goals of the applicant. • Track record of the applicant and issues of non-compliance • <u>Protection of water quality</u> 	Addressed in part. Refer to Table 2 below.	WRC Form Yes, wish to be heard

25. Hine Lavirnia & Donal Carmichael (24534110)	Oppose	<ul style="list-style-type: none"> • Lack of engagement with mana whenua on current proposal • <u>Inconsistent with Waikato Tainui Environmental Plan</u> • Increased traffic the proposal would create 	Agreed, aspects of the proposal assessed as inconsistent with the WTEP as discussed in the WRC Hearing Report.	WRC Form Yes , wish to be heard
26. Paul Vitasovich (24534405)	Oppose	<ul style="list-style-type: none"> • <u>Concerns about instability of FA3 site of past mine tailing dump</u> • <u>Proposal is inconsistent with the Vision and Strategy for the Waikato River and impacts the health and wellbeing of the river.</u> • <u>Degrading water and aquatic life, impacting the Waikato River, Lake Puketirini and Lake Waahi</u> • Risks to the recreational values of Lake Puketirini • <u>More frequent extreme weather events due to climate change</u> • <u>Risks of sediment retention ponds failing</u> 	<p>Addressed in part. Refer to Table 2 below.</p> <p>I rely on the geotechnical assessment and peer review regarding the stability of FA3. Specific conditions have been recommended to reflect the technical assessment recommendations and reduce risk of fill site failure.</p> <p>The hearing report assessments also conclude that the proposal is inconsistent with the V&S.</p> <p>The shorter consent duration recommended takes into consideration risks of climate change over a longer time span.</p> <p>The Erosion and Sediment Controls sized to manage flood events in accordance with WRC Erosion and Sediment Control Guidelines.</p>	WRC Form Yes , wish to be heard
27. Huntly Community Board (24535160)	Oppose	<ul style="list-style-type: none"> • Some community members do not have internet access and could be illiterate, hurdles to recording and reporting matters of concern. • Track record of GC, there have been confirmed RMA non-compliances. • Disregard for basic traffic management • Truck use of road and verge, runoff of silt into the Waikato River next to the road. • <u>Stormwater from the quarry runoff into the Waikato River</u> 	<p>Addressed in part. Refer to Table 2 below.</p> <p>An Asbestos Monitoring and Management Plan forms part of the application, refer to peer review recommendations which have been incorporated into the recommended condition schedule.</p>	WRC Form Yes , wish to be heard

		<ul style="list-style-type: none"> • Council inspections are not frequent enough • Unclear how or who public can report issues to • Monitoring information and outcomes be provided to the HCB • <u>Contaminants within the fill discharges to water, ground and air, including asbestos</u> • <u>Ecology</u> • Odour from marine sediments and acid sulphate soils • Visual impacts on landscape • Truck movements and vibrations • <u>Dust from the site</u> and from truck movements on road • <u>Fill 2 runoff into the Lake Puketirini catchment</u> • <u>Potential longterm impacts 50+ years post closure</u> • <u>Proposed levels of contaminants within managed fill</u>, some analytes high in comparison to other fill sites • No economic benefit to Huntly, some economic cost to ratepayers for upkeep of infrastructure • Noise • <u>Incomplete geotechnical assessment</u> (at Fill area 3?) 		
28. Tiffany Whyte (24538867)	Oppose	<ul style="list-style-type: none"> • Damage to roads and infrastructure from trucks • Cartage spillage 		WRC Form Yes , wish to be heard
29. Robert Hunt (24539073)	Oppose	<ul style="list-style-type: none"> • Trucks and associated damage to road and disturbance of residential areas. Early morning truck movements 5am. • <u>Discharge of treated water to streams and within the Lake Puketirini Catchment.</u> 	Addressed in part. Refer to Table 2 below.	WDC Form Yes , wish to be heard
30. Waikato District Council (24539087)	Oppose	<ul style="list-style-type: none"> • <u>Risks to receiving environment</u> • <u>discharges to a number of waterways that feed both the Waikato River and Lake Puketirini</u> 	Addressed in part. Refer to Table 2 and the comments below.	WRC Form Yes , wish to be heard

		<ul style="list-style-type: none"> • <u>changes to the gullies and loss of wetland and other habitat</u> • <u>Concern about fill materials that may contain Kauri Dieback Disease</u> • <u>Lack of information to assess effects on waterways, existing native biodiversity and Lake Puketirini.</u> • <u>Risk of water quality degradation, inconsistency with with the Puketirini Management Plan or the objectives in the Vision and Strategy for the Waikato River.</u> • <u>Leachate from acid sulphate soils risk to receiving environment</u> • <u>Infrastructure designed to cope with a 50 year ARI rainfall event. Seeing more frequent and intense rainfall events with climate change.</u> • <u>If consent is granted recommend CLG, more frequent water testing, not accept acid sulphate soils, rehabilitation bond, ongoing testing for 5 years after site closures.</u> • <u>Consent duration is too long, reasons given and suggested duration of 14-15 years.</u> 	<p>Agree that the proposal is inconsistent with the V&S.</p> <p>Agree that receiving un-stabilised acid sulphate soils would pose a risk to the environment under the current proposal. Unless the applicant provides a more robust AEE and changes to the management methods or only receives prior lime stabilised ASS.</p> <p>The WRC recommended conditions include more frequent water testing than proposed in the application refer to AUTH XX.04.01 including recommended conditions 3 and 5. Refer also to condition 25 AUTH XX04.01 of the stormwater consent which requires ongoing testing after capping of the completed fill sites.</p> <p>Recommended Condition 21 AUTH XX.03.01 of the managed fill consent requires 'end of life' sampling of each fill site to increase confidence that the quality of fill meets the consented requirements.</p> <p>Prohibiting the acceptance of acid sulphate soils (as the proposal currently stands).</p> <p>A reduced consent duration 10 – 15 years if consent is granted.</p> <p>The establishment of a Community Liaison Group.</p>	
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31. Warren Gavin Dickinson (24548485)	Oppose	<ul style="list-style-type: none"> • <u>Proximity of landfills to Waikato River and Lake Puketirini</u> • Huntly shouldn't be a dumping ground for Auckland's waste 	Addressed in part. Refer to Table 2 below. Agree, that sites with less sensitive receiving environments should be considered first.	WRC Form Yes , wish to be heard
32. Transpower New Zealand Limited (24549044)	Neutral	<ul style="list-style-type: none"> • <u>The 2019 proposal approved by Transpower is inconsistent with the new 2022 proposal. Main inconsistency is to do with internal access road for Fill Area 5 (FA5) for which description has been included within the current application for FA 2 – 4.</u> • 'Transpower is therefore unable to confirm with certainty whether the National Grid assets will be potentially impacted by the proximity of the proposed internal access road to FA5 and the proximity of the tip head to the transmission line.' • Recommended conditions provided in appendix B the submission. 	Condition recommended, refer to condition 63 Schedule One, to address issues raised relevant to WRC application.	Submission by letter Not stated if wish to be heard
33. Andrea Jean Dickinson (24549367)	Oppose	<ul style="list-style-type: none"> • No need for the dump in Huntly, should not be responsible for a different regions trade waste. • <u>Risk of pollution of waterways</u> • <u>Fill sites are too close to natural resources</u> • Risk to communities health 	Addressed in part. Refer to Table 2 below.	WRC Form Yes , wish to be heard
34. Melissa McDonald (24550142)	Oppose	<ul style="list-style-type: none"> • Trucks and associated traffic concerns, vibrations • Hours of operation 	District matters to be addressed through land use application.	WRC Form No , does not wish to be heard

35. Shirley McDonald (24550143)	Oppose	<ul style="list-style-type: none"> Trucks and associated mud on road, dust, traffic safety concerns Noise and request for reduced hours of operation 	District matters to be addressed through land use application.	WRC Form Yes , wish to be heard
36. Nicola Anne Maplesden (24550250)	Oppose	<ul style="list-style-type: none"> Requested extension to submission period to provide time to read through documentation <u>Risk to water resources</u> <u>The proposal includes too many unknowns</u> Truck operations incompatible with residential developments Gleeson companies have not shown that they can be trusted, past issues of non-compliance Increased truck movements <u>Runoff from quarry and site entrance streaming across road and into Waikato River</u> <u>Disturbing contaminated ground at Fill site 3</u> Ecological and aesthetic values of the Waikato River Recreational values of Lake Puketirini 	Addressed in part. Refer to Table 2 below.	WRC Form Yes , wish to be heard
37. Anthony Ernest Perkins (24563056)	Oppose	<ul style="list-style-type: none"> Traffic and hours truck movements <u>Toxic nature of fill</u> Past applicant history of non-compliance 	Addressed in part. Refer to Table 2 below.	WDC Form Yes , wish to be heard
38. Seli Salararaba Scutts (24562961)	Oppose	<ul style="list-style-type: none"> Vibrations from trucks <u>Close proximity of fill sites to Waikato River</u> 	Addressed in part. Refer to Table 2 below.	WDC Form Yes , wish to be heard
39. Te Kauri Marae Trust (24562964)	Oppose	<ul style="list-style-type: none"> <u>Landfill too close to a large residential area, river, lake and puna (springs?)</u> <u>Need to protect Waikato awa and Raahui Pookeka (Huntly township?) from adverse effects of the landfills</u> 	The hearing report assessments conclude that the proposal is inconsistent with the Vision and Strategy for the Waikato River and with	WDC Form Not stated if wish to be heard

		<ul style="list-style-type: none"> • <u>There are drinking water takes within the landfill catchment</u> • <u>Past and current use of waterways by whanau: Fish for tuna, mullet, and to swim and paddle waka.</u> • <u>Dust</u> • Noise • Traffic • <u>Leachate pollution</u> • <u>Adverse effects from the above to fauna, flora, the river and people</u> • <u>Need to restore and protect the rivers and lakes</u> • <u>The mana and mauri o te wai, the whenua, fauna and flora, and the people will not be enhanced.</u> 	the Waikato Tainui Environmental Management Plan.	
40. Lorrel Cherie Mowles & Alex John Mowles (24561772)	Oppose	<ul style="list-style-type: none"> • Truck movements • Roads - potholes and mud/debris/filth/dust from the trucks • Lack of local benefit, staff/drivers Auckland based • Track record of Gleeson's operation of the quarry does not give trust that managed fill sites would be operated responsibly. 	Addressed in part. Refer to Table 2 below.	WDC Form Yes, wish to be heard
41. Arthur & Esmee Baylis (24562651)	Oppose	<ul style="list-style-type: none"> • Toxic materials in urban areas • <u>Pollution of waterways</u> 		WDC Form Yes, wish to be heard

Table 2: Summary of Regional Concerns and Method of Address

Regional Concern Raised	Addressed/Not Addressed
<ul style="list-style-type: none"> • Discharge of contaminants to Lake Puketirini • Discharge of contaminants to the Waikato River and other surface water • Need to restore water quality within the Waikato River catchment • Discharges from acid sulphate soil (ASS) leachate 	<p>I consider the concerns raised about discharges of contaminants to water not fully addressed, refer to the AEE of the WRC Hearing report and the comments under the following subheadings.</p> <p><u>Technical Assessment</u> Discharges of contaminants to land, water and Lake Puketirini assessed in the WRC peer review titled 'Technical Assessment of contaminant discharges to land and water – Gleeson's Managed Fill', dated 22 August 2022, prepared by Dr Jonathan Caldwell, Senior Scientist for the WRC. Copy appended to the WRC Hearing report, Appendix 3.</p> <p><u>Restoration of Water Quality within the Waikato River catchment</u> The proposal has been assessed in the WRC Hearing report as inconsistent with the Vision and Strategy for the Waikato River. I consider that discharges of contaminants from the managed fill site and wetland loss do not provide for betterment or restoration of the catchment, and the level of ecological compensation is not sufficient to achieve restoration of the catchment proportionate to the level of effect of the proposal.</p> <p><u>Protection of Lake Puketirini</u> Fill Area 2 drains into the Lake Puketirini catchment. The potential effects of discharges from FA 2 to lake Puketirini are assessed by Dr Caldwell, refer to pages 6-7 of the technical assessment. An excerpt states: <i>"EHS concludes that based on the results of the RBCA modelling and baseline water quality testing, it is highly unlikely that the discharge from Fill Area 2 will adversely impact the recreational water quality in Lake Puketirini. I agree with this conclusion and add that subject to good management and operation of the proposed sediment retention pond at the base of Fill Area 2, it is unlikely that there would be any measurable increase in contaminant concentrations within the lake associated with the managed fill operation."</i></p> <p>As a precautionary measure a specific condition has been recommended, AUTHXX.03.01, Condition 41:</p>

'Additional to condition 40 above, should a perched shallow water table be identified during construction of Fill Area 2 which is likely to impact on contaminant transport from that area in a westerly direction, then fate and transport modelling shall be undertaken to determine the appropriateness of the proposed waste acceptance criteria for that fill area for ensuring sufficient protection for the Lake Puketirini catchment.'

Acid Sulphate Soils (ASS) and Marine Sediments

I agree with submitters that the applicant's proposal to accept un-stabilised ASS for onsite treatment and disposal presents environmental risk.

There is uncertainty as to the management of runoff from the proposed acid sulphate soil storage and treatment area.

Dr Caldwell's technical assessment recommends "that acid sulphate soils (including peat soils) should only be received at the site subject to provision of adequate evidence prepared by a SQEP that the soils have already been limed and stabilised offsite. pHox testing of representative samples of soils from each delivered load prior to acceptance should also be required as an additional level of confirmation of adequate treatment. This would thereby remove the need to have an onsite treatment pad and associated discharge to the quarry pit."

With regard to submissions about marine sediments, Dr Caldwell's technical assessment page 13 summarises *"I have also considered the concerns and comments raised by submitters, specifically regarding marine sediments and odour. It is correct that marine sediments can produce odour from hydrogen sulphide. This risk is usually greatest during the initial disturbance of those sediments from their source but there could be some residual odour risk at the disposal end. However, while I consider that the odour risk could be properly managed, especially if there is a requirement for the sediments to be stabilised with lime, there is also the inherent risk of both metal and organic contaminants as marine sediments, especially from estuaries, are often sinks for land-based contaminant runoff. There has been no proposal on how that risk would be managed. I am therefore recommending that marine sediments, even if treated, should not be received at this site."*

Water Quality Protection and Monitoring

	<p>Dr Caldwell’s technical assessment concludes <i>“In conclusion, while I am in general agreement with EHS that the discharges associated with the proposed managed fill operation will not result in a more than minor level of effects within the receiving surface waters and would not be expected to result in a measurable change in water quality within Lake Puketerini or the Waikato river, this agreement is subject to the following amendments and qualifications:</i></p> <ul style="list-style-type: none"> • <i>that the organic contaminant WAC are aligned with the recently released WasteMINZ Class 3 managed fill criteria;</i> • <i>acid sulphate soils and peat soils shall only be received at the site for disposal subject to adequate evidence that they have been lime stabilised;</i> • <i>marine sediments are not accepted at the site;</i> • <i>The proposed management plans and monitoring programmes (subject to my recommended amendments) are adhered to; and</i> • <i>Recommended amendments to consent conditions as detailed further below are adopted.”</i> <p>The WRC recommended conditions include more frequent water testing than proposed in the application refer to AUTH XX.04.01 including recommended conditions 3 and 5. Refer also to condition 25 AUTH XX04.01 of the stormwater consent which requires ongoing water quality monitoring after capping of the completed fill sites.</p>
Discharge of contaminants to groundwater	<p>Tim Baker, Principal Consultant – Water Resources for SLR undertook a technical review of groundwater effects in relation to fill areas 2 – 4 for WRC.</p> <p>Technical Review of Groundwater Effects, dated 10 June 2022, prepared by Tim Baker, SLR. WRC doc # 24123816.</p> <p>It is recommended that a framework be in place that would require groundwater investigation, including the installation of monitoring bores if contamination of surface flow is observed not attributable to overland runoff.</p> <p>I consider the concerns raised around groundwater are not fully addressed and there remains uncertainty as to the groundwater investigation and monitoring programme.</p>

<p>Discharge of contaminants to Air</p>	<p>A technical assessment has been undertaken of air discharges for the WRC:</p> <p>Air discharge effects addressed in WRC peer review Assessment titled '<i>Technical Assessment of Air Discharges, Gleeson's Managed Fill</i>', dated 9 August 2022. Refer to the WRC Hearing report, Appendix 5. The assessment concludes:</p> <p><i>"PDP has identified and assessed both dust and combustion related discharges to air associated with the managed fill activities, including vehicle movements, stripping of topsoil for establishing fill areas, placement of fill including asbestos containing materials, rehabilitation of fill areas with topsoil and fugitive emissions from exposed surfaces. I do not anticipate any risk of odour effects as long as there is compliance with acceptance of the specified types of fill that can be received at the site.</i></p> <p><i>In summary I agree with PDP's conclusion that the discharges of dust from the activities associated with the proposed operation is not expected to result in a significant dust nuisance or health effect relative to applicable air quality guidelines and standards provided the proposed mitigation and monitoring methods are implemented to control dust to an acceptable level as well as adherence to the proposed methods for managing and monitoring asbestos disposal. In my opinion, effects will be no more than minor from discharges associated with these sources but this is subject to a proactive adherence to the controls, monitoring and management procedures that have been proposed and the additional recommendations that I have made."</i></p> <p>The recommended conditions of consent incorporate the recommendations made in Dr Caldwell's Technical Assessment. The Discharge to Air conditions include:</p> <p>AUTH XX.03.01 - Asbestos monitoring and management, conditions 22 – 33. Schedule One - dust management, conditions 39 – 50.</p> <p>I consider that the air discharge effects have been adequately addressed by the applicant provided the recommended conditions are adhered to.</p>
<p>Discharges of Contaminants to Air – specifically erionite and tremolite</p>	<p>Dr Caldwell has addressed submitter concerns about the erionite and tremolite in the Discharges to Air Technical Assessment, pages 5 - 7, Appendix 5 to the WRC Hearing Report. Excerpt copied below:</p>

“Subsequent to my initial preparation of this Technical Assessment, I have now become aware of concerns raised through submissions on the application, specifically with regards to erionite and tremolite which I will address separately as follows.

Erionite fibres are naturally occurring minerals with similar chemical composition to asbestos but have been known overseas (particularly Turkey) to pose a more significant risk to human health from breathing airborne fibres.

Concern about erionite was raised previously in 2020 regarding a managed fill’s acceptance of soil from Watercare’s Central Interceptor pipe work that crossed a large part of Auckland where the presence of erionite may occur in association with zeolite minerals in bedrock, and the concern raised about potential contamination with erionite fibres during excavation and disposal. At the time I had a meeting with a landfill specialist and a geologist from Auckland Council who had both been involved with the Central Interceptor project. The geologist, Ross Roberts, knows the geology and doesn’t consider it likely that soils would be contaminated with erionite. He says it is very speculative and the only way of analysing samples is to have them cryogenically prepared and sent to the US for Transmission Electron Microscopy. He has also been involved with some conversations had with Worksafe over this concern. An employee of Worksafe also considered it very speculative and agreed that there didn’t need to be any additional controls in place for protecting workers who are excavating the soils. I also discussed it at the time with Dave Dangerfield and Simon Hunt from EHS, who are experts in risk management of asbestos, and their view was that it is all very speculative that the soil from the interceptor project would be contaminated with erionite fibres and that nobody seems to have provided any evidence of it.

In addition to this, I would also note that there is currently no health risk guideline that has been developed for airborne erionite fibres. So even if it was feasible to require air monitoring of erionite at the Gleeson Managed Fill site, the results of that monitoring would be difficult to interpret with regards to the risk it posed. There are also currently no standardised methods for erionite analysis. Samples would have to be potentially sent to the USA for Transmission Electron Microscopy, a very expensive and research-based analysis method. The turn-around time for getting results back from this analysis would likely be in the order of months so any monitoring would be extremely retrospective.

It is also important to point out that a significant volume of fill likely to be coming to the Gleeson site for disposal will be from surface soils from residential developments or shallow soil excavations associated with commercial developments which are very unlikely to be within the mineralised areas in deep bedrock that may potentially contain erionite where zeolite mineralisation occurs. Large infrastructure projects that are more likely to cut through those mineralised areas are more likely to be part of large-scale tunnelling projects. Tunnelling Boring Machine (TBM) spoil is more likely to be of concern in my view due to the presence of organic contaminants associated with drilling additives.

In my opinion, there is insufficient evidence that erionite is likely to be an air borne contaminant of concern and it is not feasible to require the applicant to monitor for it. Disposal of erionite in a managed fill once covered over would not pose any more risk to the environment compared to asbestos contaminated soils but there is, however, uncertainty around the risk to onsite workers during the disposal. However, I am recommending that Tunnelling Boring Machine spoil should not be accepted for disposal at this managed fill site (refer to my Technical Assessment for discharges to land and water WRC Doc# 24065024) on the basis of risk from tunnelling drilling additives that typically can have high eco-toxicity. On the basis that TBM spoil is excluded, I also do not anticipate any concern over erionite contamination of soils that are disposed of at the site.

With regards to one submitter's concern about tremolite, there is always the possibility of naturally occurring forms of asbestos such as tremolite being present in soils from the Auckland region. Despite this, there is a much greater possibility of asbestos being present in soils arising from asbestos containing building materials that have been either buried, damaged or have disintegrated over the years and shed fibres in to surrounding soils. Residential properties are likely to be the most significant source of this asbestos contamination. I therefore consider the potential risk from naturally occurring asbestos in soils to be inconsequential compared to residential and commercial sources. I would also note that any cleanfill operation is just as likely to receive soils potentially containing natural sources of asbestos and yet they would have less specific controls or management procedures in place to deal with that risk compared with a managed fill.

I also do not consider it necessary for separate monitoring of airborne tremolite as opposed to airborne asbestos fibre monitoring. Worksafe's requirements around monitoring of airborne asbestos fibres does not require individual identification of each of the different species of asbestos fibre. I am also not aware of a specific health risk limit for tremolite that could be used as a trigger limit compared to asbestos fibres in general.

With regards to concerns raised by many submitters regarding dust in general, I note that many of these concerns relate to dust generated from truck movements along Riverview Road and from some of the truck laybys near to and adjacent to the site entrance. It is evident that the source of this dust is from the trucks and their movements and does indicate that the truck loads are not necessarily being properly covered and or trucks are not using the onsite truck wash and are tracking soil offsite.

In addition to this, some of the submitters have provided photos of fugitive dust clouds over the quarry area and while the photos do not necessarily indicate that the dust is travelling beyond the site boundary, it is indicative of poor onsite dust control for the current quarry operation. In addition to this some submitters have indicated concerns about dust deposition on the windows of their houses and vehicles parked facing the quarry direction. This does indicate to me that at times fugitive dust is discharging beyond the site although it is unclear whether this is dust generated from the quarry itself or resuspended dust from Riverview Road as trucks are driving to and from the quarry, or a combination of the two sources.

While there doesn't appear to be many recorded complaints around dust that have been received by WRC over the last few years, the information provided by the submitters does indicate that a higher level of dust control is required. I am aware that the site are currently upgrading the site entrance and truck wash and will be undertaking a comprehensive clean-up and upgrade of the road which should help reduce impacts on neighbours.

As discussed earlier in my assessment, the proposed mitigation and monitoring methods for dust control for the managed fill operation are in my opinion consistent with best practice. I agree with PDP that the

	<p><i>contribution of dust from the proposed managed fill activities is likely to be low compared to the existing quarry activities. However, it will be necessary that a proactive rather than a reactive approach is taken to dust control and that these controls and procedures are adhered to and complied with as well as dust controls and procedures relating to the existing quarry operation to ensure a no more than minor level of effect beyond the boundary.</i></p> <p><i>In summary I agree with PDP's conclusion that the discharges of dust from the activities associated with the proposed site is not expected to result in a significant dust nuisance or health effect relative to applicable air quality guidelines and standards provided the proposed mitigation and monitoring methods are implemented to control dust to an acceptable level as well as adherence to the proposed methods for managing and monitoring asbestos disposal. In my opinion, effects will be no more than minor from discharges associated with these sources subject to adherence to the controls and monitoring discussed below."</i></p>
Cultural Values & effects on landscapes	Not addressed. There is no relevant cultural impact assessment or assessment of the indigenous and cultural ways of understanding the landscape and potential effects.
Potential adverse effects to water quality which is linked to health and wellbeing of mana whenua	<p>The technical assessments for discharges assess the risk to water quality. There is not expected to be any measurable change in water quality within the Waikato River or Lake Puketirini. However, I am of the opinion that the proposal will not contribute to the restoration of degraded waterways within the Waikato River catchment.</p> <p>Furthermore, the technical assessments do not satisfy the need for a cultural values assessment of the effects to water quality an associated effects to mana whenua.</p>
Ecological compensation might not be additional to waterway fencing regulations on farms	<p>This issue was discussed with the applicant in July 2021 with respect to the previous application for Fill Area 3 APP141283. At this time the applicant advised by email on 29/07/2021 (WRC doc 21383578):</p> <p><i>In relation to the compensation area and farm requirements of the NES-FW I can add the following (I note I only referred to PC1 in my comments within the conditions, not the NPS/NES requirements :</i></p> <ol style="list-style-type: none"> <i>1. The Resource Management (Stock Exclusion) Regulations 2020 mandate that stock being beef cattle, dairy cattle, dairy support cattle, deer or pigs must be excluded from lakes and rivers over 1 metre wide, with a 3 metre setback and provide conditions for stock crossing lakes and rivers. – The</i>

	<p><i>compensation area protects the margins of the stream (which in areas is less than 1m in width) for a setback much wider than the required 3m and there are no stock crossings. However, for farms that were operating before 3 September 2020, the regulations apply on <u>1 July 2023 or 1 July 2025</u>, depending on the stock type, and land type. So as the farm has been operating for years, these regulations do not apply as yet.</i></p> <ol style="list-style-type: none"> <i>2. As per Subpart 1 of the NES, no stockholding areas are proposed, and</i> <i>3. as per Subpart 2 – there is no agricultural intensification proposed, and there are no dairy related activities occurring (or proposed) on site.</i> <i>4. In regard to Subpart 3 – as the farm is so large, there is no intensive winter grazing or other types of intensification.</i> <i>5. Subpart 4 Application of nitrogen is acknowledged, but not relevant to the compensation area.</i> <p>My understanding of the regulations NESFW 2020, NPSFM2020, Stock Exclusion s360 RMA for beef farming at the subject farmland incorporating the compensation gully is consistent with the applicant’s comments above.</p> <p>I consider that it is likely there will be a degree of double dipping. That the window of time between decision on the application and the applicable waterway/wetland stock exclusion regulations coming into effect reduces the additionality of the ecological benefits of the compensation offered.</p>
Risks from extreme weather events	<p>Partially addressed through technical peer reviews.</p> <p>The applicant’s AEE includes erosion and sediment control plans sized to reduce risk of weather events.</p>
Inconsistent with Waikato Tainui Environmental Plan	<p>I agree, the proposal is inconsistent with aspects of the WTEP. Refer to the WRC Hearing Report for further discussion.</p>
Adverse effects to aquatic and terrestrial fauna, including threatened species.	<p>Addressed in part. Refer to the ecology AEE of the s42 report and the referenced ecology peer reviews. Conditions have been recommended to increase protection for native fish, lizards and bats refer to the WRC recommended conditions of consent 20 – 27 Schedule One.</p>
Loss of habitat, loss of gully systems, loss of wetlands and ephemeral and intermittent streams	<p>Not addressed. The proposal would result in a net loss of significant wetland habitat, gully systems and waterways. I consider the ecological compensation package would not fully compensate the losses.</p>
Sedimentation of waterways	<p>Not addressed. The proposal as it stands does not adequately quantify and compensate for sediment discharges or cumulative sediment discharge effects.</p>

The 35 year consent duration sought is unreasonable, does not account for cumulative effects or future changes to planning legislation	I agree. Refer to 'Consent Duration' section of s42 report. A shorter consent duration has been recommended if consent is granted.
Uncertainty of proposal, significant reliance on unconfirmed conditions and management plans	Not addressed. There is a heavy reliance on unconfirmed management plans that lack enforceability and ongoing haphazard changes/approvals. The recommended conditions of consent attempt to confirm key trigger values and monitoring requirements. There are outstanding gaps that require clarification before the recommended conditions can be updated i.e groundwater monitoring framework, ecological compensation table, water quality criteria Schedule 4.
Need for consistency with Wildlife Act 1953	The Wildlife Act is administered by DOC, and any breaches of this Act can be enforced independently of any RMA resource consent. However, for practical reasons I encourage the applicant to ensure consistency with the Wildlife Act.
Close proximity of fill sites to sensitive environments – lakes, Waikato River, wetlands, residents.	Not addressed. There is no functional need for the fill sites to be in this location which would result in the loss of significant wetland habitat and discharge to sensitive receiving environments. It is recommended that other locations with less sensitive receiving environments are investigated prior.
The mana and mauri o te wai, the whenua, fauna and flora, and the people will not be enhanced	Not addressed. The proposal has been assessed in the hearing report as inconsistent with the Vision and Strategy for the Waikato River and inconsistent with the Waikato Tainui Environmental Management Plan, the proposal has not been adequately demonstrated to result in restoration of the catchment.
Concerns about instability of FA3 site of past mine tailing dump	Refer to the Geotechnical Peer Review, Appendix 2 of the WRC Hearing Report: Geotechnical Review - Huntly Quarry 2022 Managed Fill Application, prepared by Baseline Geotechnical, dated 7 June 2022. Specific conditions have been recommended to manage discharges from the historic coal tailings dump at Fill 3. Refer to condition 5 of AUTH 01.01. Provided the recommended conditions of consent are imposed, I consider land stability effects have been sufficiently addressed.
Concern about fill materials that may contain Kauri Dieback Disease	Not addressed.

Odour	<p>I have added to Schedule 3 of the recommended conditions to prohibit a number of odour causing materials being accepted at the fill site.</p> <p>Dr Caldwell has addressed odour concerns raised in the submissions refer to page 7 of the Discharges to Air Technical Assessment, Appendix 5 of the WRC Hearing Report. Excerpt copied below:</p> <p><i>“Odour Several submitters have raised concern regarding the potential for odour associated with the managed fill operation. It appears some of this concern relates to potential odour arising from acceptance of marine sediments. I have made separate comment on this issue under my Technical Assessment for discharges to land and water (WRC Doc# 24065024). While I consider that the odour risk could be properly managed, from this source, my recommendation is that this material should not be accepted at the site due to uncertainties around contaminants that can typically accumulate in marine sediments.</i></p> <p><i>With regards to concern for odour from other sources, it is important to note that this managed fill operation will not be accepting putrescible materials such as food and animal waste or green waste that can generate odorous gases on breakdown.</i></p> <p><i>In summary, I do not consider odour as a discharge of concern based on the proposed activity. However, I am aware that there have been situations at other sites where non-compliant fill has been received which has resulted in odour issues. I would therefore recommend that a condition of consent is included that provides specific restrictions around this as follow:</i></p> <p><i>The discharge shall not result in odour that is objectionable to the extent that it causes an adverse effect at or beyond the boundary of the subject property.”</i></p> <p>I consider that the proposal can be satisfactorily managed to minimise the risk of odour.</p>

WAIKATO REGIONAL COUNCIL

S42A Report

Appendix 2

Geotechnical Peer Review



Project Reference: BGL000052A v1.1

07 June 2022

Waikato Regional Council
Private Bag 3038,
Waikato Mail Centre,
Hamilton, 3240.

Attention: Joshua Evans

Geotechnical Review – Huntly Quarry 2022 Managed Fill Consent Application

1 Introduction

Waikato Regional Council are processing an application for resource consent from Gleeson Cox Limited (the applicant), who are proposing a series of overburden disposal areas to support ongoing operations at their Huntly Quarry.

Baseline Geotechnical Limited (BGL) have previously provided technical support at pre-application stage for an earlier application. We understand that the application now incorporates those review comments as well as site specific design reports for two of the fill sites.

WRC have requested a final review of all geotechnical matters relating to the consent application, prior to completion of the planners S42A report and the hearing that is expected to follow. Our scope of works was set out in our offer of service dated 25 May 2022 and is summarized below.

2 Scope of work

1. Read and critically assess the information provided in the AEE, the geotechnical assessment report and the two geotechnical design reports.
2. Prepare a short summary report addressing whether the report is sufficient to address geotechnical related effects on the environment in relation to a resource consent application.

3 Background

BGL has been involved in geotechnical review of supporting documentation for WRC since late 2019, when we provided pre-application review of geotechnical reporting prepared by Gaia Engineers (Gaia).

Our initial review at that time provided a range of items that required additional detail or supporting documentation¹. An ongoing review process followed that is broadly summarized in Appendix 8.4.2 [Geotech Reviewer Table] of the current application document.

Some geotechnical review items remained outstanding at the time the original consent applications were lodged on 18 November 2019 [APP1411283] and 28 November 2019 [LUC0233/20]. These items were subsequently set out in our later S92 review document prepared for WRC², with those comments incorporated into a formal S92 request prepared by WRC.

Gaia issued a response to those S92 requests in January 2020, which is incorporated as Appendix 8.4.3 of the current application. We assessed that information and provided confirmation that it was satisfactory to WRC by email on 4 February 2020 [Appendix A].

We understand that the original applications were withdrawn for reasons unrelated to geotechnical risk/design.

4 April 2022 application

We understand that the applicant has now submitted a revised bundled consent application and requested public notification.

The AEE and application document incorporates much of the historical geotechnical assessment by Gaia and the previous review prepared by BGL. It also now incorporates detailed design reports for fill sites 2 and 3.

We have reviewed the historical information prepared by Gaia and revisited our earlier review comments. We have also overviewed the geotechnical design reports prepared by Gaia, which provide a higher level of design information than would normally be expected at the consenting stage of a project like this.

Our review has confirmed the following:

- The surface topography of the three fill sites in this application is the same as presented in previous applications. Therefore, the work undertaken to support the previous consent by Gaia & reviewed by BGL remains valid. There are no material differences from a geotechnical perspective.
- Our previous review queries have been addressed and are incorporated into the geotechnical reports that accompany the current application.
- The two new geotechnical design reports are consistent with previous geotechnical assessments but provide more detailed, construction level information for Fill sites 2 and 3.

5 Conclusion

We are satisfied that the geotechnical information provided is consistent with what could be expected of a suitably experienced geotechnical professional.

¹ Baseline Geotechnical Limited, 2019, Preliminary Geotechnical Review – Huntly Quarry Pre-Application Review. Prepared for Waikato Regional Council, dated 09 October 2019.

² Baseline Geotechnical Limited, 2019A, S92 geotechnical requests – Huntly Quarry Fill Sites 2, 3, and 4. Prepared for Waikato Regional Council, dated 11 December 2019.

From a geotechnical perspective, there are no material differences between this application and the previous application which was reviewed by BGL. Our review comments remain valid, and we are satisfied that these have been incorporated into the design for this revised application.

Overall, we concur with Gaia's view that acceptable levels of stability should be achievable for the proposed fill sites based on the design and monitoring proposed.

6 Applicability

This report has been prepared for the exclusive use of our client Waikato Regional Council, with respect to the particular brief given to us and it may not be relied upon in other contexts or for any other purpose, or by any person other than our client, without our prior written agreement.

We have not independently verified the information contained in the Gaia report.

We trust that this letter report meets your present requirements. If you have any queries or wish to discuss any aspect, please contact the undersigned.

For and on behalf of Baseline Geotechnical Limited



Cameron Lines

Director

Appendix A – BGL email of 4 February 2022

Cameron Lines

From: Cameron Lines
Sent: Tuesday, 4 February 2020 4:30 PM
To: 'Kathryn Drew'
Subject: RE: Gleeson Managed Fill Ltd (APP1411283) - s92 Response Letter & Table
Attachments: WRC s92 Response Table Managed Fill - WRC Responses 4.2.2020.docx

Hi Kathryn,

I have been through and reviewed the additional information supplied by GAIA dated 15 January 2020 (Attachment A of the S92 response).

The items we requested further information on as set out in our letter dated 11 December 2019 in Section 2.1, 2.2 and 2.3 have been adequately addressed in the additional information supplied by GAIA.

The information provided to date along with the ongoing detailed design work to follow consenting indicate that the proposed fill slopes can be constructed within normally accepted risk tolerances for such landforms.

I attach your word document, with our comments included.

I trust this covers those geotechnical aspects of the consenting process. If you have any queries or wish to discuss any aspect please feel free to contact me.

Kind regards
Cameron

Cameron Lines | Principal Engineering Geologist
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From: Kathryn Drew <kdrew@bbo.co.nz>
Sent: Tuesday, 4 February 2020 2:53 PM
To: Cameron Lines <cameron@baselinegeotechnical.co.nz>
Subject: RE: Gleeson Managed Fill Ltd (APP1411283) - s92 Response Letter & Table

Hi Cameron

Please populate this document, being a consolidation of other people's responses too.
Thanks

Kathryn Drew Senior Planner
BRP(Hons), MNZPI, MRMLA
Bloxam Burnett & Olliver Ltd
A Level 4, 18 London Street, PO Box 9041, Hamilton 3240

WAIKATO REGIONAL COUNCIL

S42A Report

Appendix 3

Technical Assessment of Discharges to Land / Water

Memo

File No: 22 02 09

Date: 22 August 2022 (revised 14 November 2022)

To: Emma Cowan, Resource Officer, Resource Use Directorate

From: Jonathan Caldwell, Senior Scientist, Science, Policy & Information Directorate

Subject: **Technical Assessment of contaminant discharges to land and water – Gleeson’s Managed Fill**

I have been asked to undertake a technical assessment of the discharge of contaminants into water or into/onto land associated with the application document and supporting AEEs and appendices for "APP144475 - RC Appln - Discharge Permit, Land Use & Water Activities - 300 Riverview Rd, Huntly" for a proposed cleanfill and managed fill operation.

In preparing my assessment I have referred to the following information:

- APP144475 - RC Appln - Discharge Permit, Land Use & Water Activities - 300 Riverview Rd, Huntly <https://discover.wairc.govt.nz/otcs/llisapi.dll/Overview/23785826>
- AEE summary for all activities, 4 May 2022 AEE Rev02 <https://discover.wairc.govt.nz/otcs/llisapi.dll/link/23893165>
- Air Quality AEE Nov 2019 (<https://discover.wairc.govt.nz/otcs/llisapi.dll/link/24457831>)
- Managed Fill AEE and Waste Acceptance Criteria 13 July 2022 Rev6.docx (<https://discover.wairc.govt.nz/otcs/llisapi.dll/link/24457239>)
- Surface Water Sampling & Analysis Plan July 2022 Rev7.docx (<https://discover.wairc.govt.nz/otcs/llisapi.dll/link/24457574>)
- Site Fill Management Plan 13 July 2022 Rev8.docx (<https://discover.wairc.govt.nz/otcs/llisapi.dll/link/24457573>)
- Fill 3 ESCP Rev E.pdf (<https://discover.wairc.govt.nz/otcs/llisapi.dll/link/24458245>)
- Fill 2 and 4 ESCP_Rev C (<https://discover.wairc.govt.nz/otcs/llisapi.dll/link/24457562>)
- Asbestos Fill Management Plan PDP Aug 2020.pdf (<https://discover.wairc.govt.nz/otcs/llisapi.dll/link/24492966>)
- Draft Acid Sulphate Soils Management Plan June 2022 <https://discover.wairc.govt.nz/otcs/llisapi.dll/link/24094620>
- Draft Conditions as proffered with application.docx (<https://discover.wairc.govt.nz/otcs/llisapi.dll/link/24458432>)
- Tim Baker’s review of groundwater effects (<https://discover.wairc.govt.nz/otcs/llisapi.dll/link/24123244>)
- Updated RBCA modelling by EHS for justifying proposed WAC (11 November 2022) (<https://discover.wairc.govt.nz/otcs/llisapi.dll/link/25151866>)

In addition to this I undertook a site visit on 5 December 2019.

Background

Andrew Rumsby of EHS Support prepared an AEE that assesses the effects relating to contaminants associated with Gleeson's proposed cleanfill and managed fill operation at 300 Riverview Rd, Huntly, namely the discharge of contaminants to land and or surface water and groundwater from the three proposed fill areas referred to as Fill areas 2, 3 and 4.

It is proposed that the three fill areas will receive managed fill material, essentially waste soils containing moderately elevated concentrations of metals, metalloids and organic compounds that will be above natural and ambient background concentrations and could also in some cases exceed human health and ecological protective thresholds for soils. The site is also proposing to accept Asbestos Containing Material (ACM) building waste, and asbestos-in-soil including from "Class A" asbestos removal activities as well as both treated and untreated acid sulphate soils. There is also a proposed allowance for acceptance of inert construction and demolition (C&D) materials as defined and listed as acceptable materials in Section 4.2 of Ministry for the Environment's 2002 Cleanfill Guidelines but with an allowance for up to 5% timber.

Effects on surface water via groundwater transport

Proposed waste acceptance criteria (WAC) have been proposed for each contaminant likely to be present in the fill materials being received. These WAC, which are essentially maximum concentration thresholds for contaminants are presented in Table 5 of EHS's AEE and Table 6 of the draft Site Fill Management Plan. In setting these WAC, EHS reviewed criteria set at other managed fill facilities within the Waikato Region, the Technical Guidelines for Disposal to Land (WasteMINZ, 2018) and relevant national and international human health guidelines commonly used in New Zealand.

Soil quality criteria with lower contaminant concentrations have also been developed for the capping material for the managed fill which have been designed to allow for future rural residential or agricultural land uses. For fill to be deposited within the top 2 metres of the fill site, the waste acceptance criteria has been based on a mixture of the Technical Guidelines for Disposal to Land Class 4 and Class 5 (WasteMINZ, 2018) WAC and in some cases the Auckland Regional Council Background (Technical Publication 153) concentrations. I am in agreement with this approach and consider the proposed surface WAC, except for boron, to be also consistent with Waikato cleanfill criteria. For boron, I recommend that the WAC in the top 2 metres be limited to 20 mg/kg which is just above the Waikato 95th percentile background concentration of 15.5 mg/kg (Internal WRC document # 10581789).

I agree with EHS that the proposed managed fill WAC, destined for sub-2 metre disposal, are within the typical range of criteria used at other managed fill sites within the Waikato region. At the time the application was lodged, the WasteMINZ (2018) guidelines did not include WAC for Class 3 Managed Fills. However, in October 2022, WAC for Class 3 Managed fill were released by WasteMINZ with support from the Ministry for the Environment. I was a member of the reference group set up by Ministry for the Environment to provide input into the development of these Class 3 WAC. These Class 3 WAC are default generically derived criteria but do not preclude the site-specific derivation of criteria. In this particular case, some of EHS's proposed criteria are higher and some of them are lower than the generic Class 3 criteria.

For some metals (boron, lead, nickel and zinc), two WAC are proposed with the higher WAC allowed subject to the requirement that Synthetic Precipitation Leaching Procedure (SPLP) testing results are within proposed leachability limits. I consider this to be an acceptable approach.

EHS has also assessed the potential effects of the metal and metalloid contaminants in leachate generated by the deposited waste on surface water (Waikato River) using fate and transport modelling (Groundwater Services Inc. Risk-Based Corrective Action (RBCA) software package) as well as consideration of existing background contaminant concentrations in the Waikato River. Boron and tributyl tin were excluded from this modelling as they cannot be modelled by RBCA.

This approach is in my opinion consistent with best practice for assessing environmental effects from managed fill and takes into account the underlying soil types including organic carbon content and pH and also the underlying geology of the fill areas and the groundwater flow direction which is assumed to be in an easterly direction from the fill areas to the Waikato River.

I agree with EHS's conclusions that contaminant concentrations will be very low by the time they reach the Waikato River. Apart from arsenic (due to upstream geothermal inputs), the trace element concentrations within the river are generally below the ANZG (2018) 95% ecosystem protection guidelines. Contaminant contributions from the managed fill based on the fate and transport modelling by EHS indicates that there will not be any measurable increase in contaminant concentrations within the river downstream of the fill areas.

Since boron cannot be modelled by the RCBA model, the maximum Auckland background concentration of 45 mg/kg (as outlined in TP153) has been used as the WAC. EHS has explained that the Auckland background number has been used in preference to the Waikato background number because some of the soil that will be deposited in the Huntly Manged Fill will come from Auckland region and the Waikato Coal Measures around Huntly are naturally elevated in boron. This value is typically used in Auckland Managed Fills, and surface water monitoring has not detected any changes in boron concentrations in nearby streams.

Initially I agreed with this approach for boron. It is also noted that the WasteMINZ guidelines do not include a WAC for boron and that boron concentrations in the Waikato river both upstream (Horotiu) and downstream (Huntly-Tainui Bridge) of the site are within the ANZG (2018) 95% ecosystem protection guideline despite the coal deposits and coal mining operations within the surrounding catchment. However, boron is a very mobile metal in the environment and I have reconsidered my initial position on this and would prefer that the WAC for boron should be set at 20 mg/kg which is just above the Waikato 95th percentile background concentration of 15.5 mg/kg (Internal WRC document # 10581789). I agree with EHS though, that concentrations above the lower WAC limit, but not above a higher WAC limit of 260 mg/kg should still be allowed but on the basis of SPLP analysis.

Tributyl tin, like boron, could not be modelled and is also not included in the WasteMINZ Class 3 WAC. EHS has therefore proposed the adoption of the MfE (2004) Landfill Waste Acceptance Criteria for Class B landfills. If tributyltin is below the screening level of 6 mg/kg, there is no need to test for TCLP analysis. If the concentration of tributyltin exceeds this then it can only be accepted if the toxicity characteristic leaching procedure (TCLP) analysis does not exceed 0.3 mg/L. Which is in my view an acceptable approach.

For copper, while modelling of a WAC of 325 mg/kg indicated a non-measurable change in concentration within the Waikato river, I am aware of some issues with compliance with copper limits in discharge and surface water monitoring for some other managed fill sites in the Waikato region and also that there is a current review of the ANZ guidelines for copper which may see the a downwards shift in the default trigger values for surface water protection indicating a greater level of concern about copper. I would therefore recommend that the copper WAC be reduced to align with the WasteMINZ class 3 criteria of 280 mg/kg but with a secondary higher WAC of 325 mg/kg subject to meeting an SPLP limit of 0.5 mg/L.

In the preparation of my initial technical assessment of EHS's AEE, I had assumed that fate and transport modelling had not been used to assess the effects of the proposed WAC for the organic contaminants. Instead, the WAC had been mostly justified by aligning with the MfE Petroleum Hydrocarbon soil guidelines & MfE Sheepdip soil guidelines as well as the Auckland Unitary Plan acceptance criteria and existing WasteMINZ Technical Guidelines (2018) for disposal to land controlled fill and cleanfill criteria for BTEX.

The proposed organic compound WAC values are all consistent with commonly used risk-based soil guideline values used in NZ as well as WAC that have been used in other managed fills. However, in my initial review I asked, via a section 92 request, for EHS to provide me with further justification of the relevance of those risk-based soil guidelines and Auckland Unitary Plan acceptance criteria to setting waste acceptance criteria for organic contaminants at the Gleeson's site with regards to protection of groundwater and surface water, particularly with regards to the PAHs and organochlorine (DDT, aldrin and dieldrin) WAC.

EHS responded (28 June 2022): PAHs and organochlorine compounds have high log KoC and very low water solubility (to the point of being insoluble in water for DDT and high molecular weight PAHs). Due to these factors EHS Support believe that the waste acceptance criteria will be protective of environmental health.

In the interim since EHS had provided this justification, the WasteMINZ Technical Guidelines for disposal to land Class 3 WAC were released which raised the question of whether EHS's proposed WAC for organic compounds should be changed to the WasteMINZ Class 3 WAC.

On further discussion of this with EHS, I realised that some of the organic compounds had actually been modelled (namely aldrin, dieldrin, DDT and naphthalene) but that the modelling predicted such low concentrations in surface water that EHS could have proposed much higher WAC but instead selected WAC based on the MfE Petroleum Hydrocarbon soil guidelines & MfE Sheepdip soil guidelines which were much more conservative. The other organic compounds had not been modelled in EHS's initial assessment. EHS therefore agreed to modelling benzene, toluene, ethylbenzene and xylenes with BaP_{eq} represented by modelling the majority of individual PAHs that are typically used to represent overall equivalent toxicity for BaP. The TPH fractions were not included in this re-modelling.

A memo was provided to me by EHS on 8 November 2022 which provides the results of the modelling using RBCA of these additional organic compounds including the original ones that had been previously modelled based on the proposed WAC. The output of the modelling is the likely change in concentration in the Waikato River and comparison with drinking water guidelines and ecological receptor guideline values. There is little or no baseline water quality data for many of these organic

compounds in the Waikato River. However, the predicted change in concentration within the Waikato River (under low flow conditions) based on the predicted effects of the WAC is within the order of 10^{-12} to 10^{-14} mg/L, which represents concentrations that would be undetectable using currently available commercial analytical methods.

While the TPH fractions were not modelled, it is important to point out that the C₇-C₉ fraction WAC of 120 mg/kg proposed by EHS is less than the 200 mg/kg recommended in WasteMINZ for Class 3 WAC. EHS's proposed WAC of 300 mg/kg for C₁₀-C₁₄ is also lower than the 600 mg/kg Class 3 WAC. While EHS also proposes a secondary higher WAC of 1400 mg/kg for this fraction, this is subject to evidence that the disposed waste soils also meet the BTEX and BaP_{eq} criteria which have been modelled and are also significantly lower than the Class 3 criteria except for benzene which is only slightly higher at 0.2 mg/kg compared to the Class 3 value of 0.11 mg/kg. For the C₁₅-C₃₆ fraction, EHS proposes a WAC of 20,000 mg/kg. While this may sound a very high WAC, it is important to note that the TPH recommendations for developing the WasteMINZ class 3 criteria by PDP specifically commented on reasons why they wouldn't even bother setting a WAC for this fraction. The reason given was that this fraction generally represents heavy hydrocarbons in fuels that are not particularly toxic and have very low leachability and that calculation of a WAC would result in a high value of tens of thousands of mg/kg. PDP said that there is in effect no limit to the allowable concentration of heavy aliphatic hydrocarbons in waste soil. In this particular case however, EHS has provided an upper WAC limit of 20,000 mg/kg which is based on MfE's Petroleum Hydrocarbon guidelines (Tier 1 soil acceptance criteria for protection of groundwater quality but with the requirement that PAH criteria are also met).

In my opinion, this modelling as well as comparison against other relevant criteria provides a site-specific justification for using the proposed WAC for both the metals & metalloids as well as the organic compounds rather than using the generic WasteMINZ Class 3 WAC, noting that in some cases the WasteMINZ criteria are actually higher for some contaminants and that EHS proposes an additional level of protection for some contaminants where SPLP analysis would be required or the requirement that other criteria are also met for TPH and BTEX and PAHs.

For managed fill containing other contaminants not listed in Table 5 of the AEE, EHS proposes that for:

- inorganic elements not listed in Table 5, contaminant concentrations shall not exceed the concentrations within TP153 Background Concentrations of Inorganic Elements in Soils from the Auckland Region for volcanic soils.
- organic compounds not listed in Table 5, then Canadian Council of Ministers of the Environment (CCME, 2018) agricultural soils guidelines will be used as an initial screening criterion. If no CCME agricultural soil guidelines exist or higher concentrations of contaminants are proposed to be deposited within the managed fill, then site-specific criteria will need to be developed and submitted to WRC for approval.

I agree with EHS that it is important to provide for the eventuality that from time-to-time contaminants that are not listed in the Table 1 WAC will be identified in fill that is intended to be disposed of at the site. Often it is very low concentrations of pesticides and other related organic compounds for which it is not possible to provide an exhaustive list in a consent. Having an agreed on method for deciding whether that material can be accepted at the site provides certainty for both the consent holder and the consenting authority. Many managed fill and cleanfill operations for example do not have a specified process or contingency for dealing with less commonly encountered contaminants.

However, I recommend that rather than relying on the TP153 background concentrations for inorganic elements in soils for the Auckland region or the Canadian Council of Ministers of the Environment (CCME, 2018) agricultural soils guidelines, a better approach would be to require Synthetic Precipitation Leaching Procedure (SPLP) testing with the requirement that the SPLP concentration should not exceed 100 x the ANZ guideline for 95% protection. For pesticides for which there is no ANZ guideline available, then the SPLP concentration should not exceed 20 x the Queensland Proposed aquatic ecosystem protection guideline values for pesticides (Department of Environment and Science – 2018).

In addition to this, in addressing concerns raised by submitters around air discharges of the asbestos-like mineral erionite that potentially occurs in zeolite mineralised areas of Auckland in deep bedrock (refer my Technical Assessment of air discharges WRC Doc# 24495227) I have recommended that tunnelling boring machine (TBM) spoil should not be accepted at the site. My reasoning for this is not specifically for addressing concerns about erionite, but because of the associated eco-toxic tunnelling drilling additives that are used in these large-scale tunnelling projects. I therefore recommend that tunnelling boring machine (TBM) spoil is included in the prohibited list in Schedule 4.

With regards to existing baseline groundwater quality, EHS has not been able to source groundwater quality data for the site as groundwater has not been intercepted by any existing monitoring wells at the quarry. Additionally, the elevation of the gullies within the proposed fill areas is approximately 30 m above the base of the main quarry pit where groundwater seeps out. EHS has concluded that due to this relative difference in height, groundwater at the site is unlikely to intercept the proposed fill areas. No groundwater bores have been identified between the site and the Waikato River and therefore EHS does not consider groundwater as a sensitive receptor.

I have also questioned via a section 92 request, EHS's assumption that all groundwater from Fill area 2 is flowing towards the Waikato River. Specifically, I asked for comment on how the results of fate and transport modelling based on an easterly groundwater flow towards Waikato River might be impacted if ponded water in Fill Area 2 is found to be recharged by an obscured spring as potentially indicated by GAIA's geotechnical engineering assessment (page 487 of application). In summary, is there potential for a westerly transport closer to the surface in Fill Area 2 if a spring is found to be recharging this area?

EHS responded (28 June 2022): The GAIA report was a preliminary overview report to lodge with the RC. Since then, a Detailed Design report has been provided by Gaia for FA2 which again mentions the risk if groundwater springs are encountered. The mitigation strategy proposed is to provide sufficient contingency in the construction budget for additional sub-surface drainage to collect flows and divert/discharge downstream of the fill site. Gaia have confirmed that the potential risk of encountering groundwater springs is included in all reports of this nature, to cover any unforeseen groundwater – it was not based on any investigation or observation to there being any actual springs evident within the Fill Areas. In addition, The Ecological Impact Assessment report (Boffa Miskell, 2019) indicated that FA2 is part of the Lake Waahi and Lake Puketirini catchment. Fill Areas 3 and 4 are part of the Waikato River catchment. There are no permanent streams within the proposed fill areas. Only ephemeral/intermittent streams are observed, indicating that the surface water bodies within the proposed fill areas are not fed by groundwater but by surface water runoff.

Based on EHS's response and further discussion with Andrew Rumsby by phone, it is evident that he does not think that there is potential for groundwater transport of contaminants in a westerly direction. However, in making a final determination on this, I initially indicated that it would be important to consider the final conclusions of hydrogeologist expert, Tim Baker from SLR Consulting Ltd, who identified this potential in his initial review. I recommended that should a perched shallow water table be identified during construction of Fill Area 2 which is likely to impact on contaminant transport from that area in a westerly direction then this could be addressed through a consent condition requirement to have fate and transport modelling undertaken to determine the appropriateness of the proposed waste acceptance criteria for that fill area. An alternative approach which has more recently been proposed by Tim Baker, is a requirement for groundwater monitoring investigation and installation of bores in the situation where contamination of surface flow is observed to be not attributable to overland runoff. I agree with this proposal.

In my opinion, the proposed WAC for metals and metalloids have been through a robust assessment process and should not result in a more than minor level of effects on groundwater and surface water. Applying the recently developed WasteMINZ Class 3 WAC for the organic compounds should also provide confidence that there will be a no more than minor level of effect on groundwater and surface water arising from discharges associated with those organic compounds. I also agree with EHS that data collected for other managed fills indicate that the mean contaminant concentrations are likely to be significantly less than the proposed waste acceptance criteria for the site therefore indicating that predicted effects from the fate and transport modelling which were based on maximum WAC will have a level of conservatism built in.

Effects on surface water via direct discharge from sediment retention ponds

Stormwater & groundwater discharges and existing water quality of receiving environment

Stormwater from the three managed fill areas will be collected into separate stormwater sediment retention ponds (SRPs). Fill Areas 3 and 4 will discharge into an ephemeral system that discharges in turn to an unnamed stream which flows into the Waikato River. Fill Area 2 will discharge into an ephemeral system that discharges into an unnamed tributary that flows into Lake Puketirini. There are no permanent streams within the proposed fill areas. Only ephemeral/intermittent streams, indicating that the surface water bodies within the proposed fill areas are not fed by groundwater but by surface water runoff.

Fill area 3 (FA3) is located on an historic fill disposal site associated with coal mine tailings and overburden material that were previously deposited at the site. EHS Support undertook a site investigation to characterise potential contaminants in the soils as a result of this historical deposition. The investigation identified selected heavy metals (arsenic, boron, cadmium, cobalt, chromium, copper, lead, mercury, nickel, thallium, and zinc) at levels above published background concentrations but well below the applicable NES-CS Soil Contaminant Standards (SCSs) for commercial/industrial end use. EHS Support has prepared a Contaminated Site Management Plan (pg 984 of application document) which provides procedures to manage potential ground contamination effects on human health and the environment during ground disturbance activities associated with development of FA3.

Groundwater within the site drains via existing groundwater drainage contours to the north and east, contributing to flows within the stream. Deep drainage will be installed to collect groundwater contaminated with the historic coal mining contamination. A clay liner and drainage blanket will then be installed with managed fill to be placed on top of this. Stormwater runoff from the fill site will be treated via a sediment retention pond with a discharge sampling point referred to as DS1. A second sampling point referred to as DS2 will be located in the unnamed stream on Gleeson's site just prior to it entering the culvert under Riverview Road and its ultimate discharge to the Waikato River. Initially, a 75 m³ tank will be located below the FA3 SRP discharge location (DS1) as a contingency to ensure that contaminant concentrations are within the proposed trigger limits.

Drainage from the historical fill material that is underlying FA3 will be collected via a separate drainage system and pumped to a 30 m³ holding tank. Testing of this drainage water will be undertaken to determine whether it has to be removed offsite for disposal at an authorised facility or whether it is acceptable to be discharged in to the FA3 sediment retention pond.

Stormwater from Fill Area 4 will be directed into a stormwater SRP with a discharge sampling point referred to as DS3 and the same downstream sampling point DS2 as will be used for FA3.

Baseline water quality data has been collected by EHS from the unnamed stream at location DS2 which has identified that elevated concentrations of dissolved zinc, aluminium and chromium with zinc exceeding the ANZG (2018) 95% protection guideline and ranging up as high as the 80% protection guideline. I agree with EHS's conclusion that these elevated concentrations for aluminium, chromium and zinc are not related to the applicant's existing operation and is also outside the control of the applicant. There is also no evidence that these existing contaminant concentrations within the unnamed stream are resulting in any measurable elevations downstream within the Waikato river.

Stormwater from Fill Area 2 will also be directed into a stormwater sediment retention pond with discharge sampling point DS4 and a downstream sampling point, DS5, 50 metres downstream prior to the ephemeral watercourse entering the unnamed western watercourse that drains to Lake Puketirini.

Limited water quality data has been collected by EHS from samples taken from the unnamed tributary downgradient of Fill Area 2 and Lake Puketirini and EHS notes that the water quality dataset is not extensive and is unlikely to represent the seasonal variability of all water quality parameters. The unnamed tributary appears to be sometimes elevated in aluminium, thallium and zinc relative to other rural streams. All parameters measured in a sample from Lake Puketirini were significantly lower than the ANZG (2018) guidelines for 95% ecosystem protection and ANZECC (2000) Recreational Water guidelines. However, the concentration of boron is elevated. I agree with EHS's conclusion that this may be due to the impacts of historical coal mining at Weaver's pit, as coal within the Waikato is known to contain high levels of boron.

EHS concludes that based on the results of the RBCA modelling and baseline water quality testing, it is highly unlikely that the discharge from Fill Area 2 will adversely impact the recreational water quality in Lake Puketirini. I agree with this conclusion and add that subject to good management and operation of the proposed sediment retention pond at the base of Fill Area 2, it is unlikely that there would be any measurable increase in contaminant concentrations within the lake associated with the managed fill operation.

Sediment retention control and treatment of contaminants

The proposed erosion and sediment controls for the site during initial excavation and development of the fill areas will be undertaken in accordance with WRC's Erosion and Sediment Control Guidelines for Soil Disturbing Activities (Waikato Regional Council, 2009) and should be sufficient for avoiding contaminant discharge to the environment. Stockpiling, soil disposal and dust controls, including contingency measures in the event of observations of unexpected contamination, are also appropriate in my opinion for ensuring a no more than minor level of effects on the environment during excavations.

The proposed sediment retention pond (SRP) treatment system for FA3, FA4 & FA5 is discussed in the Erosion and Sediment Control Plans which have been developed by Southern Skies Environmental Ltd. All three SRPs will be subject to chemical flocculation treatment to enhance settlement and sediment retention and will be managed in accordance with a Chemical Treatment Management Plan (CTMP) with cleaning out of sediment when no more than 20% of the pond's capacity is reached. The removed material will be disposed of back into the fill site. Clean water diversions will be used to divert stormwater from adjacent clean/stabilised areas away from the SRPs.

The treatment systems will include:

- A rainfall activated dosing system;
- A dose rate (based on bench testing trials) of 4 mg/L of aluminium per litre applied in the form of polyaluminium chloride (PAC); and
- Ongoing monitoring of treated sediment retention devices will also be required, as outlined in the CTMP with any deficiencies identified indicating the requirement for further bench testing.

In addition to weekly site walkovers and pre-, during and post-rain event inspections of erosion and sediment control devices on site there will be the additional site monitoring and reporting undertaken in response to the following rainfall trigger events:

- ≥ 15 mm in one hour; or
- ≥ 25 mm in 24 hours

Within 24 hours of the occurrence of a rainfall trigger event, investigation, response and reporting shall be undertaken against the following sediment retention pond performance triggers:

- pH (to demonstrate it does not fall outside the range of 5.5 to 9);
- Total suspended solids, to demonstrate it is not greater than 100 g/m³ or the sediment retention pond/s stormwater treatment is 90% treatment efficiency;
- Turbidity

The results of the investigations and sampling shall be reported to the Waikato Regional Council within 15 working days of the corresponding rainfall trigger event, including any contingency actions undertaken in response to exceedance of a trigger value.

Appendix C of EHS's Surface Water Sampling and Analysis Plan (SAP) provides a proposed methodology for measuring sediment levels in the water discharged from the fill site after treatment is proposed. Because most sediment is mobilised during storm events, the programme is proposed to be based on rainfall. The trigger for sampling is proposed to be 20 mm of rain recorded over the previous 24 hours.

It is proposed to assess sediment levels based on water clarity measurements (i.e. clarity reading of 6 cm equating to about 100 g/m³ of suspended solids). Samples would be collected from the outlet to the SRP and within the nearby watercourse downstream of the discharge point from the SRP with monitoring undertaken for a 2-year period to assess the effectiveness of the system. Provided the results show that no significant adverse sediment-related effect is occurring on the environment, then it is proposed that the programme is discontinued.

I agree with the proposed SRP treatment systems and management procedures which are detailed and robust and consistent with industry best practice. I also agree with EHS's additional two year sediment discharge and receiving environment monitoring recommendations which will provide additional evidence of whether or not the SRPs are effectively controlling sediment discharge. However, I note that EHS's proposed rainfall trigger for sampling of 20 mm over 24 hours is inconsistent with Southern Skies' proposed rainfall trigger of 25 mm over 24 hours for site monitoring and reporting of erosion and sediment control devices. I would recommend having a similar rainfall trigger of 25 mm per 24 hours for EHS's water clarity monitoring in the SRP discharges and downstream watercourses.

Proposed contaminant trigger limits for discharges and surface water

Proposed surface water discharge criteria have been recommended by EHS Support in Table 4-1 of the Surface Water Sampling and Analysis Plan (SAP) for the initial discharge points DS1 (from FA3 and FA4) and DS4 (FA2) as follows:

- US EPA's Criterion Maximum Concentration (CMC) water quality guidelines (US EPA, 2019) have been used for aluminium and chromium (III) which are acute exposure guidelines more relevant to intermittent stormwater discharges into ephemeral surface waters.
- For the other contaminants, CMC values do not exist, so site-specific trigger values have been derived on a case-by-case basis. In the case where background concentrations may be high in the receiving environment (cadmium, copper, lead and nickel) ANZG (2018) 80% & 90% ecosystem water quality guidelines have been used. This allows for dilution within the receiving environment after reasonable mixing. In the case of boron and thallium ANZG (2018) 95% ecosystem protection values are proposed.
- In the case of arsenic, the NZ drinking water Maximum Acceptable value is proposed.
- Whole Effluent Toxicity Testing (WETT) of the stream water collected from DS2 has been proposed as the method for determining the zinc discharge criteria for DS1 and DS4 with the 80% ANZ protection value proposed to be used if the NOEC value determined by the WETT analysis is greater than this value.

In my opinion, these trigger limits are appropriate as there will be intermittent discharges into an ephemeral watercourse where the discharge is only likely to be occurring for a short period of time during and after a storm event and there will be more significant dilution further down the catchment when it eventually enters a flowing stream. The approach for zinc is also appropriate due to the elevated concentrations of zinc that have already been identified by EHS Support in the receiving environment at DS2 by baseline monitoring. The WETT analysis was undertaken by NIWA on samples collected by EHS Support and provides robust evidence in my opinion that setting the discharge limit for zinc of 0.031 mg/L (equivalent to ANZ 80% protection value) for discharge into the catchments that are fed by the three fill areas should provide protection equivalent to or greater than the generic default ANZ 95% protection value.

As the surface water eventually discharges into the Waikato River from FA3 and FA4 and into Lake Puketirini from FA2, EHS has also proposed receiving environment trigger values for the downstream sampling sites DS2 and DS5 (refer to Table 4-2 in EHS's SAP). The trigger values are proposed to be set at the ANZG (2018) water quality guidelines for 95% freshwater species protection but with the 90% protection value proposed as an interim guideline value for aluminium and the default unknown reliability guideline for Chromium (as Chromium III) until background monitoring consisting of at least twenty monitoring events over a period of 6 months is completed to establish background concentration levels. If background concentrations of aluminium and chromium are found to be less than 80% of those respective guidelines, after hardness modification is applied, then they will be adopted as the permanent trigger values.

I agree with this approach for setting trigger limits for the receiving monitoring locations DS2 and DS5 with the intent of achieving 95% protection which provides the default level of protection expected for surface water. For aluminium and chromium, which have previously been identified as being elevated from baseline monitoring of the stream at DS2 and potentially aluminium at DS5 (but only based on limited sampling) I was initially in agreement with the proposed approach of collecting more data over a 6-month period in order to establish whether the concentrations are within 80% of the respective ANZ guidelines after hardness modification. However, subsequent to this, I now question this approach. There has been no reference to application of modifying factors for chromium and aluminium in the consent conditions or how it would actually be applied. While it is acceptable to adjust the ANZ default guideline value for Chromium (III) of 0.0033 mg/L based on the hardness of the water, I have not seen a specified methodology proposed for how this will be achieved and whether it is actually necessary, especially for the Puketirini catchment. For Aluminium, the ANZ guidelines do not specify aluminium as being able to be modified for hardness and while aluminium toxicity is affected by pH, the ANZ guidelines already provides a protective value of 0.055 mg/L for receiving waters that are pH >6.5. Also, we have probably had close to six months where this monitoring could have been undertaken to provide evidence for such a modification to be applied prior to granting consent. This approach in my opinion provides a level of complexity and uncertainty around what the final trigger limits will be for chromium and aluminium and I haven't seen sufficient evidence that it is necessary.

I therefore recommend that the ANZ 95% value for Aluminium of 0.055 mg/L and the low reliability default guideline value for Chromium (III) of 0.0033 mg/L are adopted as the downstream trigger limits.

It is important to note that no downstream limit for zinc is proposed for DS2 and DS5. The reason provided by EHS when questioned on this is that elevated zinc has already been identified from baseline monitoring of the stream at DS2 which is not related to the applicant's existing operation and is also outside the control of the applicant. Zinc from the managed fill operation will instead be appropriately controlled through the site-specific trigger limit that has been derived for use at DS1 and DS3 (the discharge points for FA3 and FA4). I would however, recommend that zinc concentrations are still monitored and reported on in order to identify any changes in state and trend at DS2.

I agree that on this basis, as long as zinc concentrations are being appropriately monitored and controlled upstream at DS1 then this should be sufficient. However, it is still unclear to me why a zinc trigger limit can't be applied at DS5 in the downstream receiving environment for FA2 in the Lake Puketirini catchment. As recommended above for DS2, zinc should still be monitored and reported on at DS5 even if a trigger limit is not set. I also recommend that a condition of consent requires firstly

that prior to the commencement of any stormwater discharge to the receiving environment from Fill Area 2 (DS4), the discharge criteria for zinc at sampling location DS4 shall be determined using WETT analysis of a sample of stream water taken from receiving environment sampling location DS5 with the trigger limit being set at 0.031 mg/L if the no observable effects concentration (NOEC) value from the WETT analysis results is equal to or greater than 0.031 mg/L. Secondly I agree with the applicant's proposal for further confirmation of the WETT derived value for zinc after FA2, FA3 and FA4 has been in operation for some time where it would be intended that samples are taken from these three discharge locations for purposes of that WETT analysis. I note that in the proffered consent conditions, this has been proposed as a condition (condition 3) of the stormwater discharge consent but after five years of operation. I would recommend a shorter period of time, possibly after three years of operation to allow for an earlier confirmation of the original WETT analysis in case there needs to be some significant alteration of the trigger limit to ensure adequate control of effects.

EHS has proposed that receiving environment sampling (DS2 and DS5) is undertaken four times per year and that surface water discharge monitoring (DS1) is undertaken five times per year (including two times that coincides with the receiving environment sampling programme). I would recommend that the frequency of sampling from the receiving environment locations DS2 and DS5 is increased to six times per year to provide greater certainty that the existing baseline is not trending upwards.

EHS also proposes a statistical methodology for analysis of the water quality results in order to determine if there is any obvious increasing trend which if identified would trigger the need for review of various factors that may need to be addressed. I agree with this proposed approach which provides an early warning to the consent holder before exceedances occur which reduces the potential for non-compliance and an increase in effects on the environment beyond that authorised.

In summary, the proposed water quality trigger values and monitoring and analysis procedures are sufficiently protective in my opinion, subject to the recommendations I have made above regarding additional frequency of receiving environment monitoring, additional WETT analysis of a sample of stream water from the Puketirini catchment prior to discharge from Fill Area 2 and the setting of chromium and aluminium receiving environment trigger limits for DS2 and DS5 at the default ANZ protective values without application of modification factors unless more certainty around the methodology can be provided.

Proposed contaminant trigger limits for contaminated groundwater

EHS has also proposed water quality trigger values to determine whether the groundwater (potentially contaminated from historic coal waste fill) that is collected from FA3's under drainage system into a storage tank can be discharged into the SRP or whether it would require additional treatment or off-site disposal. EHS proposes sampling from the storage tank on a weekly basis (or immediately before discharge if the tank is over 80% full). On-site analysis of total boron, copper, lead and zinc using a HACH D 3900 spectrophotometer will be used to confirm if the concentrations meet either Level 1 or Level 2 criteria and that pH is between 6 to 9 pH units (refer Table 4-3 of EHS's SAP).

- Level 1 criteria are based upon the DS1 and DS4 discharge criteria but with adjustments made for a conservatively assumed 50% removal of copper, lead and zinc due to alum dosing and 10-fold dilution factor for all four elements within the sediment retention pond (based upon a dead storage volume of the SRP of 470 m³ and a total storage tank volume of 30 m³).

- Level 2 criteria are also based upon the DS1 and DS4 discharge criteria, with adjustments made for a conservatively assumed 50% removal of copper, lead and zinc due to alum dosing and a 25-fold dilution factor within the sediment retention pond (assuming 750 m³ of water within the SRP). An additional safety factor is used for boron by assuming only a 5 times dilution within the SRP.

EHS's SAP (Appendix A, Figure A-2) provides a decision tree (also included in the Site Fill Management Plan) that outlines the process for determining if Level 1 or Level 2 criteria should be used. Level 1 criteria can be used under standard operating conditions of the pond. Level 2 criteria would require that the discharge structure be raised to ensure that the pond would have 750 m³ of water within the pond and additional sampling would be required to ensure that the water quality did meet the stormwater discharge criteria for sampling site DS1 before the water was able to be discharged.

These proposed trigger limits and procedures for managing the disposal of the potentially contaminated groundwater collected from under FA3 is appropriately protective in my opinion.

Management of acid sulphate soils and marine sediments

Acid sulphate soils (ASS) occur naturally and when disturbed and exposed to air can become oxidised which can result in generation of acidic leachate which can mobilise inorganic elements such as iron, arsenic, copper and zinc which can result in surface and groundwater contamination. ASS can be stabilised by treatment with lime which prevents acidic leachate generation. ASS have been identified recently in several locations within the Waikato region as well as the Auckland and Northland regions with a project to map the likely presence of ASS in the Waikato region currently in progress.

The Fill Site Management Plan and EHS Support's AEE and draft Acid Sulphate Soil Management Plan provide specific controls and procedures around managing the effects of ASS as well as marine sediments if they are disposed of at the site as follows:

- Limed and stabilised ASS can be accepted in the managed fill without any further treatment provided adequate documentation is provided as evidence of the ASS properties and treatment and on-site soil treatment validation testing provides confirmation that the soils have been sufficiently treated.
- Untreated ASS can also be accepted but will be required to be treated on site on a purpose-built treatment pad where runoff will be piped to a holding pond sized for up to the 50 year storm event. The pond will be dewatered by pumping to the quarry pit when its pH is between 6 and 9. The pH will be monitored and buffered with caustic soda if required to ensure the pH range is achieved.
- Marine sediments must have a solids content of at least 20% and liberate no free liquids when transported; meet the waste acceptance criteria outline in Table 5 of the AEE; and have undergone ASS testing and be limed neutralised.

My initial assessment of this proposal and response was that there is going to be an increased requirement for disposing of ASS at an appropriate disposal facility in the Waikato region due to the increased awareness and investigations undertaken. Many disposal facilities do not have any specific contingencies or controls for dealing with ASSs and therefore EHS's proposed approach to managing treated and untreated ASS and marine sediments provides a transparent mechanism for ensuring that these soils are appropriately dealt with. My opinion was that subject to installation of the proposed

treatment pad system and adherence to the proposed procedures and controls specified in the ASS management plan, that the risks could be adequately mitigated. This was also subject to my additional recommendation that there should be frequent testing of metals and pH from the treatment pad pond runoff prior to discharge to the quarry pit.

However, I have since become aware that the treatment pad discharges via the quarry pit would not be authorised by the current suite of consent applications or that such a discharge would require authorisation via a separate consent application or variation to the existing quarry pit discharge consent. Whatever the required consenting mechanism, I do have some changes to my original recommendations around controlling and monitoring these discharges which if implemented and complied with, should result in a no more than minor level of effect on offsite surface water.

I agree with EHS's proposal that pond water containing run off from the treatment pad will need to be monitored for pH to ensure that it is between 6-9 pH units before it can be discharged to the quarry pit. However, I would recommend that the pH will need to be checked on a daily basis as well as before any discharge to the quarry pit. In addition to this, any discharge to the quarry pit should also be subject to boron, copper, lead and zinc analysis using the onsite HACH D 3900 spectrophotometer as per the methodology proposed for allowing release of the contaminated groundwater from under Fill area 3 to the Fill area 3 sediment retention pond. This would require development of appropriate criteria based on the sizing of the treatment pad pond volume and the volume of the quarry pit. If it doesn't meet this criteria then contingencies for treatment such as pH neutralisation or flocculation or trucking away for authorised offsite disposal will need to be undertaken.

In addition to this, I would also recommend that discharges from the quarry pit are subject to routine monitoring and analysis for the full suite of contaminants as per discharges from the managed Fill Area sediment retention ponds (i.e. Al, As, B, Cd, Cr, Cu, Pb, Ni, Tl, Zn and TPH) with trigger limits based on ANZ guidelines for freshwater 95% protection and a TPH trigger of 5 mg/L (33% of the MfE 1998 Petroleum Guidelines). I would recommend that this monitoring occur at least six times per year (i.e. 2 monthly).

I would also recommend that acid sulphate soils (including peat soils) that have been limed and stabilised offsite prior to delivery (subject to provision of adequate evidence prepared by a SQEP) that pHox testing of representative samples of soils from each delivered load prior to acceptance should also be required as an additional level of confirmation of adequate treatment.

I have also considered the concerns and comments raised by submitters, specifically regarding marine sediments and odour. It is correct that marine sediments can produce odour from hydrogen sulphide. This risk is usually greatest during the initial disturbance of those sediments from their source but there could be some residual odour risk at the disposal end. However, while I consider that the odour risk could be properly managed, especially if there is a requirement for the sediments to be stabilised with lime, no such assessment of this risk has been provided and there is also the inherent risk of high concentrations of metal and organic contaminants within the marine sediments, especially from estuaries, which are often sinks for land-based contaminant runoff. There has been no proposal on how that risk would be managed which would require a quite specific and representative investigation design, including contaminant suite identification for analysis. I am therefore recommending that marine sediments, even if treated, should not be received at this site.

Management of asbestos containing materials and soils

The disposal of asbestos containing materials and soils only poses a risk to the environment when asbestos fibres become airborne in situations where it is poorly managed. I have provided a technical assessment of discharges to air associated with the proposed managed fill operation, including disposal of asbestos in a separate report (refer to Technical assessment of air discharges - Gleeson's managed fill (<https://discover.wairc.govt.nz/otcs/llisapi.dll/link/24495227>)). As long as the procedures and controls discussed under that report are adhered to then asbestos disposal should not pose a risk to the wider environment.

Testing and acceptance procedures for fill material

Section 12.3 of the Consent application document (page 46) refers to Pre-Testing and Pre-Approval of Fill Material and refers to secondary testing of loads upon arrival to site (every 500m³, plus random testing and an annual audit – by samples and by X-ray). Details of this pre-approval process are explained in section 7 of the Site Fill Management Plan (SFMP) with additional specification of the procedures for random analysis of loads using hand-held XRF which I consider to be appropriate as well as conditions relating to this in the proffered consent conditions. However, it will be important that detailed procedures and methodology regarding secondary testing of loads, random testing and annual audits by laboratory analysis are also documented in the final approved Site Fill Management Plan prior to managed fill being accepted for disposal at the site.

Finally, the SFMP and EHS Support's AEE provides a list of items that will be prohibited from the managed fill. This list is in my view very comprehensive and provides certainty around not accepting waste material that can pose a significant risk to the environment.

Conclusion

In conclusion, while I am in general agreement with EHS that the discharges associated with the proposed managed fill operation will not result in a more than minor level of effects within the receiving surface waters and would not be expected to result in a measurable change in water quality within Lake Puketerini or the Waikato river, this agreement is subject to the following amendments and qualifications:

- that the WAC for copper and boron are lowered as per my recommendations;
- acid sulphate soils and peat soils shall only be received at the site for disposal subject to the controls and monitoring regime similar to that proposed for dealing with the Fill Area 3 groundwater;
- marine sediments are not accepted at the site;
- The proposed management plans and monitoring programmes (subject to my recommended amendments) are adhered to; and
- Recommended amendments to consent conditions as detailed further below are adopted. Noting that apart from my recommendations above under the acid sulphate soil section of my assessment, I have not put forward any specific wording at this stage around acid sulphate soils but can do subject to whether the associated discharges are able to be accommodated under this consent application or not.

Recommended amendments to consent conditions

I am in general agreement with the proffered consent conditions which should provide an acceptable level of control on effects in addition to the detailed draft management plans that have also been provided. However, there are some additional amendments and recommendations as follows.

Schedule Four:

There are some inconsistencies in the proposed trigger values for discharge sampling under Schedule Four as follows:

Regarding the first table under Schedule 4 – I would recommend that the caption is amended as following and a footnote be added to the Zinc trigger value to note that this trigger value will be subject to the results of additional WETT analysis testing to be undertaken as required under conditions 2 and 3 of the stormwater consent. If WETT analysis testing provides evidence that a lower trigger limit should be applied, then the lower trigger limit supersedes this one. Also, the pH trigger value should really be a range which should be 5.5 to 9.0 pH units and 6.0 to 9.0 for the under-drain storage tank discharge to the pond.

Water quality parameters and proposed trigger values for stormwater discharge at Sampling location DS1, DS3 and DS4 and Fill Area 2 and Fill Area 4.

Parameter	Proposed Trigger values (mg/L)	Source and Rationale
Dissolved Aluminium (0.22 µm filter)	0.980 ¹	US EPA CMC. Intermittent discharge and Colloidal aluminosilicates may give high values
Dissolved Arsenic	0.01 ²	MoH (2018) Drinking Water Standards
Dissolved Boron	0.940 ³	ANZG (2018) 95% Guidelines. High Background values
Dissolved Cadmium	0.0008 ¹	ANZG (2018) 80% Guidelines. Allows for dilution
Dissolved Chromium (based on Cr(III))	0.57 ¹	US EPA CMC. Intermittent discharge
Dissolved Copper	0.0251 ⁵	ANZG (2018) 80% Guidelines. Allows for dilution
Dissolved Lead	0.0056 ⁴	ANZG (2018) 90% Guidelines. Allows for dilution and protection of drinking water.
Dissolved Nickel	0.013 ⁴	ANZG (2018) 90% Guidelines and Protection of Drinking water
Dissolved Thallium	0.00003 ⁴	ANZG (2018) 95% Guidelines. High Background values
Dissolved Zinc	0.031	Confirmed as being non-toxic by Whole Effluent Toxicity testing of the stream water collected from sampling location.
Total petroleum hydrocarbons (TPH)	15 ⁶	MfE (1989) Petroleum Guidelines. To avoid visible sheens
pH	>5.5 (6.0 for storage tank Fill 3 underdrain) pH units	

Note: Dissolved aluminium shall be measured using 0.22 µm ultra-filtration method to remove colloidal aluminium from clay particles.

1. US EPA CMC (for aluminium the lowest CMC has been used with a water hardness of 100 mg/L, DOC equal 1 mg/L and pH 7)
2. MoH (2018) Drinking water standards
3. ANZG (2018) 95% ecosystem protection guideline value
4. ANZG (2018) 90% ecosystem protection guideline value
5. ANZG (2018) 80% ecosystem protection
6. Based upon MfE (1989) Environmental Guidelines for Water Discharges from Petroleum Industry Sites in New Zealand recommendation of 15 mg/L.

With regards to the second table under Schedule 4 – I would recommend that the caption is amended as following and also the reference to chromium VI and the 0.006 trigger needs to be replaced with EHS’s recommendation of chromium III and 0.0033 as per the cut and paste below this from EHS’s SAP document. I also recommend that the ANZ 95% value for aluminium of 0.055 mg/L is applied instead of the 90% protection value.

Water quality parameters and proposed trigger values for downstream receiving water quality at DS2 and DS5

Parameter	Proposed Trigger values (mg/L)	Source and Rationale
Dissolved Aluminium	0.080 ¹	ANZG (2018) 90% Guidelines. Background may be elevated during storm conditions.
Dissolved Arsenic	0.024 ²	ANZG (2018) 95% Guidelines.
Dissolved Boron	0.940 ²	ANZG (2018) 95% Guidelines.
Dissolved Cadmium	0.0002 ²	ANZG (2018) 95% Guidelines.
Dissolved Chromium (as Chromium VI)	0.006 ¹	ANZG (2018) 90% Guidelines. Background may be elevated.
Dissolved Copper	0.0014 ²	ANZG (2018) 95% Guidelines.
Dissolved Lead	0.0034 ²	ANZG (2018) 95% Guidelines.
Dissolved Nickel	0.011 ²	ANZG (2018) 95% Guidelines.
Dissolved Thallium	0.00003 ²	ANZG (2018) 95% Guidelines.
Total petroleum hydrocarbons (TPH)	5 ⁴	33% of the MfE (1989) Petroleum Guidelines. To avoid visible sheens on the surface of the water.

Dissolved Chromium (as Chromium III)	0.0033	ANZG (2018) Default Guideline Value
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For the third table under Schedule 4 – the copper, lead and zinc criteria for level 2 are incorrect and inconsistent with what was proposed in EHS’s SAP document. The criteria should be 1.25 for copper, 0.25 for lead and 1.55 for zinc.

In addition to this the table also needs to refer to the acceptable pH range which should be 6.0 to 9.0 pH units under both Level 1 and Level 2 criteria.

Proposed trigger values for discharging Underdrain Storage Tank

Parameter	Proposed Trigger values (mg/L)	
	Level 1 Criteria	Level 2
Total Boron	1.0	5.0
Total Copper	0.5	1.5
Total Lead	0.1	0.3
Total Zinc	0.6	1.8

Note:
mg/L = milligram per litre

Condition 12 of the Land-Solid Waste consent

With regards to removal of the rolling mean from the Fill acceptance criteria table 1, I am fine with this. I am not overly convinced with the ability for operators to demonstrate compliance with calculating the rolling mean and in any case, its purpose is more as a management tool to assist them with understanding how concentrations are tracking. The maximum waste acceptance criteria should stay as it is because these are the numbers that were modelled and used to demonstrate the level of effects. This is also why I am in favour of retaining the WAC that were modelled and derived specifically for this site as they represent a site specific derivation rather than applying the generic Class 3 criteria that were developed under the WasteMinz guidelines (except for copper). I would also note that many of EHS's proposed criteria are quite a bit lower (e.g. arsenic, cadmium, mercury, BaP_{eq} and BTEX except for Benzene which is slightly higher) as well as others that will provide extra protection/certainty compared to the Wasteminz ones at higher concentrations due to a requirement for SPLP analysis (e.g. copper, nickel, lead and zinc). I recommend the following changes to boron and copper as discussed in the body of my report as well as some minor amendments to the footnotes to this table.

Contaminant Type	Parameter ¹	Proposed Waste Acceptance Criteria (> 2 m) (mg/kg)	Proposed SPLP Leachability Limits (mg/L) ⁸	Maximum Truckload Fill Concentrations Shallow (<2 m) Clean Fill (mg/kg)
Elements	Arsenic	100 ²	-	12 ³
	Boron	2045 ^{3,10,17} (260) ⁷	2	2045 ¹⁷
	Cadmium	7.5 ^{4,9}	-	0.65 ⁹
	Chromium	400 ^{4,9}	-	55 ³
	Copper	280 ¹⁸ (325) ⁴	0.5	45 ³
	Mercury	1.5	-	0.45 ³
	Nickel	65 (320) ⁷	1	35 ³
	Lead	250 ¹⁰ (1,000) ⁷	1	65 ³
	Thallium	23 ¹²	-	1
	Zinc	400 ¹⁰ (2,000) ⁷	1	180 ³
BTEX Compounds	Benzene	0.2 ¹⁰	-	0.0054 ⁹
	Toluene	1.0 ⁹	-	1.0 ⁹
	Ethylbenzene	1.1 ⁹	-	1.1 ⁹
	Total xylenes	0.61 ⁹	-	0.61 ⁹
Polycyclic Aromatic Hydrocarbons (PAH)	Benzo-a-pyrene (eq)	20 ⁴	-	2 ⁹
	Naphthalene	7.2 ⁵	-	0.013 ¹¹
Total Petroleum Hydrocarbons (TPH)	C7-C9	120 ⁵	-	120 ⁹
	C10-C14	300 (1,400) ¹³	-	58 ⁹
	C15-C36	20,000 ¹⁴	-	-
Others	DDT and isomers	8.4 ^{4,6}	-	0.7 ⁹
	Aldrin	0.7	-	-

Contaminant Type	Parameter ¹	Proposed Waste Acceptance Criteria (> 2 m) (mg/kg)	Proposed SPLP Leachability Limits (mg/L) ⁸	Maximum Truckload Fill Concentrations Shallow (<2 m) Clean Fill (mg/kg)
	Dieldrin	0.7 ^{4,6}	-	-
	Tributyltin	6 ¹⁵	0.3 ¹⁵	
Asbestos	Refer to Table 2 of the Huntly Quarry – Asbestos Fill Management Plan (PDP, 2019).			

Notes:

- All values in mg/kg unless otherwise stated.
- Ministry for the Environment (MfE) 'National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health' (MfE, 2012) for a commercial/industrial outdoor worker.
- Auckland Regional Council (ARC) 'Technical Publication 153 (TP153) – Background Concentrations of Inorganic Elements in Soils from the Auckland Region' (ARC, 2001).
- Auckland Council (AC) 'Auckland Unitary Plan: Operative Version' (AC, 2018), Table E30.6.1.4.1.
- MfE' Guidelines for Assessing and Managing Petroleum Hydrocarbon Contaminated Sites in New Zealand' (MfE, 2011). Table 4.15 Tier 1 soil acceptance criteria.
- MfE' Identifying, Investigation and Managing Risks Associated with Former Sheep-dip Sites: A guide for local authorities' (MfE, 2006).
- Concentrations of boron above 45 mg/kg, lead above 250 mg/kg, nickel concentrations above 65 mg/kg and zinc above 400 mg/kg in infill materials will require Synthetic Precipitation Leaching Procedure (SPLP) testing to be carried out on the fill materials before acceptance, to demonstrate that elevated concentrations of these elements will not mobilise under conditions likely to be present in the fill area. The in-brackets value is the maximum concentration that can be accepted if SPLP results are satisfactory.
- Leachability limits from the MfE' Guidelines for the management of hazardous waste – Module 2: Landfill Waste Acceptance Criteria and Landfill Classification' (MfE, 2004) and WasteMINZ (2018) Technical Guidelines for Disposal to Land – Type 2 landfill.
- Total concentrations from WasteMINZ (2018) for cleanfill (Class 5 landfill Waste Acceptance Criteria).
- Ridge Road, Quarry Managed Fill Acceptance criteria (2018).
- Canadian Council of Ministers of the Environment (CCME, 2018) Recommended Criteria for the Protection of Freshwater Life.
- Thallium guideline value based upon US EPA Regional Screening Levels for thallium sulphate for industrial sites (see <https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables>)
- Initial screening criteria based on Ridge Road. Value in bracket is the upper limit of TPH based upon criteria if soils meet BTEX and PAH criteria listed above. The higher value is based upon MfE' Guidelines for Assessing and Managing Petroleum Hydrocarbon Contaminated Sites in New Zealand' (MfE, 2011). Table 4.20 Tier 1 soil acceptance criteria for Protection of Groundwater quality.
- TPH C₁₅-C₃₆ value is based upon MfE' Guidelines for Assessing and Managing Petroleum Hydrocarbon Contaminated Sites in New Zealand' (MfE, 2011). Table 4.20 Tier 1 soil acceptance criteria for Protection of Groundwater quality. ~~The criteria for BaP_{eq} and naphthalene must also be met. and assume soil also meets PAH criteria above.~~
- MfE' Guidelines for the management of hazardous waste – Module 2: Landfill Waste Acceptance Criteria and Landfill Classification' (MfE, 2004) – Class B landfills. Leachability limits are determined by the TCLP test. Waste containing TBT higher than 6 mg/kg can be accepted as long as it meets SPLP criteria of 0.3 mg/L.
- Thallium waste acceptance criteria for shallow (less than 2 M) is based on Maximum thallium concentration in farmed soils within the Waikato (rounded down from 1.4 to 1 mg/kg) based upon data presented in Taylor, M., Kim, N., (2009) De-aluminium as a mechanism for increased acid recoverable aluminium on Waikato Soils. Australian Journal of Soil Research, 47, pp 828-838.
- 95th percentile background soils data for the Waikato region. WRC internal document #10581789.
- WasteMINZ Technical Guidelines for Disposal to Land, Class 3 WAC.

Advice Note: For concentrations of boron above 20 45 mg/kg, copper above 280 mg/kg, lead above 250 mg/kg, nickel above 65 mg/kg and zinc above 400 mg/kg in fill materials will require Synthetic Precipitation Leaching Procedure (SPLP) testing to be carried out on the fill materials prior to acceptance into the landfill, to demonstrate that elevated concentrations of these elements will not mobilise under conditions likely to be present in the fill area. The in-brackets value is the maximum concentration that can be accepted if SPLP results are satisfactory.

Advice Note: Any changes to the fill acceptance criteria will require an application pursuant to s127 RMA.

As previously discussed in my Technical Assessment above, I agree with EHS's proposal to also include specified procedures for deriving WAC for metal and organic contaminants that are not included in Table 1 of Condition 12. However, I would recommend that EHS's recommendations around this need to be more fully detailed with provision of a flowchart that could be included in Schedule 4 for example, that sets out a clear and transparent process for setting acceptable criteria for contaminants not included in the WAC Table.

Condition 14(iv) of the Land-Solid Waste consent

Both your version of conditions and condition 14(d) of the applicant's conditions refers to No prohibited material outlined within the Site and Fill Management Plan shall be accepted into the managed fill. You then also set out items for exclusion in a separate condition 15. However, I would recommend that the fuller list of prohibited items as identified in Schedule 3 is referred to rather than the fill management plan. This would also remove the need to have condition 15 but noting that some of those items listed under condition 15 could be added to the Prohibited Wastes Table under Schedule 3 such as:

- Radioactive substances
- Bulk liquids and liquid waste [noting that bulk liquids is already in that table but extending it to including liquid waste]

I would also recommend adding in the following items to this prohibited list in response to some of the concerns raised by submitters around potential wastes that might end up in the fill site:

- No animal carcasses or animal waste
- No motor vehicle bodies, engines or parts
- Tunnelling boring machine (TBM) spoil

Condition 32 and 33 of the applicants Land-Solid Waste consent conditions

These conditions still refer to the artificial wetland which is no longer part of the proposal so should be removed.

Condition 36 of the applicants Land-Solid Waste consent conditions

Refers to the Wasteminz guidelines August 2018 but this could be updated now to the October 2022 version.

Condition 2 & 3 of the applicant's version of the Stormwater consent

Condition 2, I recommend the following amendments:

Prior to the commencement of any stormwater discharge to the receiving environment from [Fill Area 2 \(DS4\)](#), the discharge criteria for dissolved zinc at sampling location ~~DS1~~ [DS4](#) shall be determined using Whole Effluent Toxicity Testing (WETT) and by using the methodology provided in Appendix E to the Sampling and Analysis Plan (SAP) version received 27 October 2021, WRC doc # 22010801. WETT analysis shall involve collection of stream water from ~~DS2~~ [DS5](#) by an independent and suitably qualified water quality expert with WETT analysis to be undertaken by NIWA. The no observable effects concentration (NOEC) value from the WETT analysis results will be used to ~~determine~~ [confirm that the zinc discharge criteria of 0.031 mg/L for sampling location ~~DS1~~ DS4 is sufficiently protective](#). If the

NOEC value is greater than or equal to 0.031 mg/L the 80% freshwater ecosystem protection outlined in ANZG (2018) then no change to the zinc discharge criteria is required. If the NOEC value is less than 0.031 mg/L then the discharge criteria for that discharge location will need to be revised to this new lower NOEC value through a certified revision of the Sampling and Analysis Plan. the default guideline value for 80% freshwater ecosystem protection (ANZG, 2018) for zinc will be used instead of the NOEC value determined by the WETT analysis.

Condition 3, I recommend the following amendments:

The WETT analysis shall be undertaken on a date being ~~five~~ **three** years post commencement of discharges from the SRPs ~~via the wetland~~ using the methodology provided in Appendix E to the SAP. WETT analysis shall involve collection of discharge water from DS1, **DS3 and DS4** by an independent and suitably qualified water quality expert with WETT analysis to be undertaken by NIWA. The no observable effects concentration (NOEC) value from the WETT analysis results will be used to ~~determine~~ **confirm that** the zinc discharge criteria **of 0.031 mg/L** for sampling location DS1, **DS3 and DS4 is sufficiently protective**. If the NOEC value **for each discharge location is greater than or equal to 0.031 mg/L** the zinc discharge criteria currently set out in the certified SAP, then **no change to the zinc discharge criteria is required**. If the NOEC value is less than 0.031 mg/L then the discharge criteria for **that discharge location** will need to be revised to this new lower NOEC value through a certified revision of the Sampling and Analysis Plan.

Condition 8 of the applicant's stormwater conditions

Some amendments are needed for this consent condition. The 6 monthly monitoring frequency is quite different from the frequency that Andrew has been recommending which was four times per year from the receiving environment locations and five times per year from the SRP discharge locations. However, I would recommend that the frequency for the receiving environment locations is increased even more than quarterly and should be every two months i.e. six times per year. This will provide additional assurance to the submitters around monitoring, especially with regards to the upper catchment that feeds into Lake Puketirini.

So amendments to Condition 8 as follows:

In addition to the sampling required in condition 7, surface water samples shall be collected from the discharge points at the end of the treatment systems **DS1, DS3 and DS5 five times per year** ~~monthly basis, and at the outlet of the artificial wetland~~ and from the downstream sampling points **DS2 and DS5 as identified in the Sampling and Analysis Plan on a quarterly** ~~two monthly~~ **two monthly** basis, excepting times when there are no discharges, until **such** time as the fill activities on site have ceased and the site has been rehabilitated.

Surface water samples shall be submitted to an accredited laboratory for analysis of the following contaminants;

(a) Dissolved Aluminium (**0.22 um filter**); (b) Dissolved Arsenic; (c) Dissolved Boron; (d) Dissolved Cadmium; (e) Dissolved Chromium; (f) Dissolved Copper; (g) Dissolved Lead; (h) Dissolved Nickel; **Dissolved Thallium**; and (i) Dissolved Zinc; and (j) **Total petroleum hydrocarbons (TPH)**.

~~Total petroleum hydrocarbons~~ Flowrates will also be measured and recorded at the time that samples are collected.

Additional recommendations for conditions:

- I also recommend that a condition of consent is included for Fill Area 2. Specifically, should a perched shallow water table be identified during construction of Fill Area 2 which is likely to impact on contaminant transport from that area in a westerly direction then fate and transport modelling should be undertaken to determine the appropriateness of the proposed waste acceptance criteria for that fill area for ensuring sufficient protection for the Lake Puketirini catchment. Alternatively, I also agree with the recommendation to require groundwater monitoring investigations.

WAIKATO REGIONAL COUNCIL

S42A Report

Appendix 4

Wetland Assessment

27 Grey St
Cambridge 3434
021 031 2716



31 October 2022

Emma Cowan
Resource Officer Land Development
Waikato Regional Council

Re: Gleeson and Cox Fill Consent Application: Wetland Ecological Effects: Update to memo 22 July 2022

1 Background

Gleeson Quarries Huntly Limited is seeking resource consent to create an overburden placement site and operate a managed / clean fill site at the Huntly Quarry. It is anticipated that the same fill areas will be used for both overburden and managed fill. The proposed fill sites are located on farmland around the north and western sides of Huntly Quarry on Riverview Road, Huntly.

You have asked me to review the ecological impact and compensation reports prepared for the proposal, and to outline any further requests for information I think necessary; specifically you asked eight questions, short responses are presented below, with fuller detail in the body of the memo.

This memo updates the 22 July 2022 memo I sent to you, taking into account newly supplied information submitted in response to further information requests.

1. *Do I agree with the applicant's assessment of effects, and are there any gaps in the assessment i.e. terrestrial, aquatic, lake, water attenuation, other.*

The EIA (Boffa Miskell 2019) methodology is relatively comprehensive and sound, barring its acknowledged lack of fauna surveys for bats¹, birds, and lizards, but lacks quantification of terrestrial vegetation loss and under-estimates the extent of wetland area loss². A subsequent report quantified the terrestrial vegetation loss.

The applicant does not fully assess, or include in the wetland quantum, two small areas of wetland vegetation immediately downstream of the Fill Area (FA)2 and FA4. Based on the maps in the EIA, these appear likely to be within the footprint of proposed sediment retention ponds, but based on version E of the Erosion and Sediment Control plans lie outside but within 100 m of the proposed sediment ponds. These wetlands may be

¹ A bat survey and bat management plan were later completed for the applicant.

² Reply to s92 request from Kate Madsen, Paua Planning, 20 June 2022.

affected by the sediment pond construction and operation, and have not been included in the assessment of effects.

The pre-drainage of part of an induced wetland in Fill Area 3 was also likely underestimated. The EIA estimates that FA3 comprised 700 m², however that is only 1.6% of 42,000 m², which does not match the EIA pg 11 description of this being an area dominated by an indigenous wetland species (*Juncus edgariae*) and “a large part of which appears to be relatively regularly inundated”. In FA3 the pond alone comprised approximately 700 m² indicating that the native wetland rushland was not included in the quantum of wetland affected, or fully mitigated.

2. *Whether the ecological mitigation/compensation offered is like for like and/or appropriate.*

The compensation package proposed in the EMP comprises fencing, pest and weed control, and planting of a nearby gully. Separate compensation is proposed to offset loss of long-tailed bat habitat.

It is difficult to assess the adequacy of compensation for the loss of wetland habitat because of the complex nature of the assessment baseline.

- a. The EIA and EMP were well over 2 years old when the application was lodged, and by June 2022 some features were not as described in those documents, e.g. Fill Area 3 was partially drained and Planting Area 9/ Management Unit 6/ Vegetation Zone 10 was indigenous swamp millet - not exotic Mercer grass as described in the EMP and therefore should not have been sprayed and replanted.
- b. The area of wetland lost is likely larger than that reported in the EIA as noted in #1.
- c. Three of the proposed EMP mitigation activities (fencing, some planting and animal pest control) had already been offered as mitigation for unconsented drainage of FA3.
- d. These and additional activities proposed in the EMP were completed prior to the lodgement of the consent application.

If I fully set the baseline as the date of application, and therefore exclude the full area of FA3 lost prior to lodgement and also fully discount EMP activities offered as mitigation for that loss, then residual activities of terrestrial planting, animal pest control and ongoing weed control are adequate offsets for loss of terrestrial habitat, but are not like for like compensation for the loss of the proposed future loss of at least 1869 m² of significant wetland habitat. Therefore, the proposed future loss of wetland has not been adequately compensated.

Designing the proposed sediment retention ponds to incorporate similar pond and margin vegetation could provide a suitable onsite mitigation option for the loss of wetlands. These could be designed to allow for regular pond maintenance required to maintain their sediment retention function without affecting planted compensation vegetation.

3. *Whether the ecological monitoring is appropriate. Any additional recommendations for monitoring i.e. MCI in watercourses?*

Ecological monitoring is proposed for bait take/trap catch in the compensation area and weed control, along with bat monitoring. Additional monitoring should be undertaken to document compensation planting and the outcome of pest monitoring (e.g. chew card /tracking card monitoring for residual pests).

4. *Does the proposal offer a net benefit to the Waikato River catchment (Vision and Strategy)?*

Water quality benefits to the Waikato River catchment are likely minimal as the compensation area flows to a supertrophic lake (Waahi), however this is more appropriately assessed by your sediment and aquatic ecosystem experts.

5. *Is the proposal consistent with regulations i.e. RPS, NPS, WRP.*

The ponds and associated margins in Fill Areas 2 and 4 are constructed wetlands and don't meet the NPS-FM definition of natural wetland. However, these wetlands are acknowledged in the EIA as meeting at least two of the Waikato RPS criteria for significant areas, and therefore trigger the wetland drainage rule: 3.7.4.7 Discretionary Activity Rule – Drainage of Wetlands.

The wetland in Fill Area 3 is induced and therefore subject to the NES rules. Most of it was destroyed prior to the enactment of the NPS and NES for Freshwater Management, however small, degraded remnants remain.

Two small areas of *Carex* sedges in ephemeral watercourses below the constructed ponds may meet the definition of natural wetland under the NPSFM, however it is unclear whether they will be impacted by the proposed activity. They are noted on the Erosion & Sediment Control Plans (version E) but not ecologically described in any of the literature I have been presented with³. The ESCP (Rev E) shows them located within 100 m of the proposed sediment ponds. That may trigger NES rule 54 c "*the taking, use, damming, diversion, or discharge of water within, or within a 100 m setback from, a natural wetland.*" for damming and discharge activities.

Some activities conducted in the compensation area as mitigation for the loss of FA 3 wetlands contravene the non-complying NES rule 54 for vegetation clearance within a natural wetland - i.e. drilling and poisoning in excess of 500 m² of grey willow and spraying approximately 2000 m² of native swamp millet with herbicide. The NES vegetation clearance definition includes "*(a) means the disturbance, damage, destruction, or removal of vegetation by any means (for example, by cutting, crushing, application of chemicals, or burning); and..*"

³ Envoco prepared a report describing wetlands north of Fill Area 3 (July 2022) on the property of Mike O'Riley, however those are not the wetlands I am here referring to, which are on the G&C property, immediately downstream of the fill areas and shown as 'secondary wetland' or 'induced wetland' on the ESCP documents Rev E 18.09.22 (Erosion & Sediment Control Plan Fill 2 – First Stages of Filling and Erosion & Sediment Control Plan Fill 4).

6. *Anything else I think relevant*

Regarding other matters of relevance. I agree that the ponded areas above the bunds in Fill Areas 2 and 4 and their associated margins are constructed wetlands. Nevertheless, they are significant under the Waikato RPS as stated in the EIA. I consider the FA3 wetland to be an induced not constructed wetland, and any remnants may therefore be subject to the NES provisions. Areas of natural wetland have been confirmed (but not described or quantified) downstream of the fill areas⁴. My understanding is that the sediment retention ponds have been repositioned to avoid their direct loss, although being located within 100 m of the damming and discharge of water from the sediment ponds may trigger non-complying status under NES-FM s54c for discharge and damming within 100 m of a natural wetland.

7. *Any recommendations I may have.*

I recommend that a compensation package be developed to directly address the loss of wetland as a result of the proposed activity, along with additional minor recommendations.

8. *Any further information requirements.*

A number of further information requirements were requested in my memo to you dated 18 July 2022, largely these have been settled with subsequent documentation. There remains a lack of full assessment of effects of wetlands below the proposed sediment ponds.

2 Scope and Methods

My area of expertise lies within wetland ecosystems and terrestrial and wetland ecology. Therefore, I have not assessed flowing aquatic or lentic (lake ecosystems) in the context of this application.

My understanding is:

- Gleeson Group are seeking resource consent from Waikato Regional Council and Waikato District Council to fill four sites with overburden and managed fill on their land at Huntly.
- Three fill sites include wetlands, all of which are deemed in the EIA⁵ to meet the Waikato Regional Policy Statement definition of significant area of indigenous vegetation or habitat for indigenous fauna, requiring a discretionary consent for their drainage/ in-filling and mitigation for their loss.
- One of these areas (Fill Area 3) was subject to drainage prior to resource consent being issued and a mitigation package was offered to offset its loss.
- A single compensation site has been proposed, to offset loss of terrestrial and wetland habitat⁶, comprising a nearby gully with remnant indigenous forest and wetland. The compensation package comprises planting, weed control, pest control and fencing from stock. Parts of the compensation package were offered in August 2020 to mitigate the unconsented loss of Fill Area 3 prior to the application being lodged⁷.

⁴ Per version E of the ESCP's, 18 Sept 2022.

⁵ Boffa Miskell Ltd 2019

⁶ Note an additional compensation plan and site is offered for long-tailed bats.

⁷ Letter from Paua Planning to Emma Cowan, 18 August 2020

- Application for consent was lodged with WRC on 14 April 2022.
- The application will be publicly notified.

I have reviewed (among other material provided by Paua Planning via a shared online drive) the following documents and base my comments on these documents, aerial/satellite images, and a site visit on 7 June 2022.

1. A letter from Dr Jamie MacKay, Senior Ecologist, Wildland Consultants, to Bianca Schoeman, Paua Planning Ltd, 12 November 2019 titled GLEESON QUARRY HUNTLY OFFSET LOCATION ASSESSMENT.
2. Gleeson Quarries Huntly Limited - District and Regional Resource consents for new fill sites within quarry landholdings: Ecological Impact Assessment. Boffa Miskell Ltd 14 November 2019.
3. An ecological mitigation/compensation plan prepared by Wildland Consultants, May 2020: Contract Report No. 5208f: ECOLOGICAL MANAGEMENT PLAN FOR THE PROPOSED COMPENSATION SITE AT GLEESON QUARRY, HUNTLY.
4. An email from Kate Madsen, Director & Principal Planner, Paua Planning Ltd, to Emma Cowan (Waikato Regional Council), 18 August 2020. "PROPOSED MITIGATION FOR DRAINAGE OF WETLAND POND IN 'FILL AREA 3' ON GLEESON LANDHOLDINGS, HUNTLY".
5. Letter from Stantec to Gleeson Group, 24 December 2021, titled Huntly Managed Fill: Wetland Peer Review.
6. Reply to s92 request for further information from Kate Madsen, Paua Planning Ltd, 20 June 2022.
7. Wildlands 2020. Bat Management Plan for Gleeson Quarry, Huntly. Contract Report No. 5208e
8. Envoco Pest Management Plan, May 2021.
9. Envoco. Ecological Mitigation Monitoring Report Gleeson Huntly Quarry Gleeson & Cox Ltd May 2022
10. Paua Planning. 12 July 2022. Assessment of Effects Proposed Overburden & Managed Fill Activity Riverview Road Huntly.
11. Envoco, Quantification of indigenous terrestrial vegetation in Fill Areas 2 and 4. September 2022.
12. Ecological Assessment of wetlands north of Fill Area 3 at Gleeson Huntly Quarry, Envoco, July 2022⁸

My assessments also refers, to and takes into account advice from you via email (dates listed where relevant).

On 7 June 2022, I conducted a half-day orientation site visit with Josh Joshua Evans Resource Officer, Land Development, Waikato Regional Council. We were driven to a ridge above Fill sites 2, 3, and 4, and guided to Compensation Area 4 by Shawn McLean, Gleeson Group. Shawn did not accompany us on foot.

⁸ Note that this report describes wetlands in addition to the wetlands I saw immediately downstream of the existing constructed wetlands in FA 2 and FA 4 and mapped on Erosion & Sediment Control Plan SRP 2 Establishment and Erosion & Sediment Control Plan Fill 4. One of those wetlands is within 25 m of the sediment ponds in EESCP. I have not seen either of those two wetlands described in any reports. I am not concerned about the wetlands described in the Envoco report 2022

We walked Fill Site 2 and looked at the stream gully below it, we traversed Fill Site 3, and looked at Fill Site 4 and the stream gully below it. We then drove to and walked the length of the wetland in Compensation Area 4.

3 Fill Area 3 and compensation works as at 7 June 2022

You advised me via email 14/06/2022 that:

The Fill 3 compensation specific to the loss of the wetland at this site is separate to this application process because GC are not applying for retrospective consent for the Fill 3 wetland loss, the compensation was offered through the separate compliance pathway.

It would only be the current ecological values of Fill 3 which need compensation – such as the stretch of ephemeral stream below the fill site (the wetland had been destroyed prior to application lodgement).

Fill Area 3 is described in the EIA (based on field survey 25 to 29 June 2019) as comprising “4.2 ha within a grazed paddock, a large part of which appears to be relatively regularly inundated.” The EIA also states that much of it was dominated by native Edgar’s rush (*Juncus edgarii*), interspersed with patches of rank grass. Edgar’s rush is a species found in wetlands more often than not (wetland status = Facultative Wetland⁹). A regularly inundated area dominated by a native wetland plant is highly likely to have met the RMA definition of wetland and the WRP significant wetland criterion. This suggests the area of wetland in Fill Area 3 was larger than the 700 m² reported in the EIA (700 m² is only 1.6 % of 42,000 m² and is the size of the pre-drainage pond alone).

An aerial photograph taken in 1941 (Retrolens¹⁰ Image 77537 295/20) shows this area was originally a gully, with a small remnant forest patch and downstream wetland. It has since been filled and contoured. My understanding is that Fill Area 3 was filled with mining tailings which have impeded drainage and induced formation of a wetland, i.e. regularly inundated and dominated by a native facultative wetland plant (*Juncus edgarii*) per the EIA. It was not deliberately constructed to function as a wetland and was not, at the time of survey for the EIA, dominated by exotic pasture species. A farm pond was constructed within Fill Area 3 (likely between 1991 and 1995, based on Retrolens images SN9124 and SN9401). While the pond was no doubt constructed, the rest of the wetland area would be considered induced (inadvertently created through the placement of fill).

Based on the EIA description and its history as an **induced** wetland, much of Fill Area 3 as described in 2019 is likely to have met the Natural Wetland definition in the National Policy Statement for Freshwater Management (NPSFM). However, the site was drained in June 2020, prior to the release of the NPSFM in September of that year. Presumably then, only the Waikato Regional Plan (and Waikato District Plan) rules apply in respect to the areas lost in June 2020. Being dominated by native wetland rush it met the WRPS definition of significant wetland, and therefore required a discretionary consent for drainage under the WRP.

Mitigation activities to offset the damage to the site were proposed (Paua Planning letter to Emma Cowan, 18 August 2020). They comprised:

⁹ <https://www.envirolink.govt.nz/assets/2122-HBRC259-New-Zealand-Wetland-Plant-List-2021.pdf>

¹⁰ <https://retrolens.co.nz/>

1. Fencing around entire compensation area: see Figure 1 in Wildlands Report 'Ecological Management Plan for the proposed Compensation Site at Gleeson Quarry, Huntly' dated May 2020.
2. Complete initial pest plant control in Management Units 2a, 3d and 6: see Figure 2 in Wildlands Report 'Ecological Management Plan for the proposed Compensation Site at Gleeson Quarry, Huntly' dated May 2020.
3. Planting of Areas 9 and 10 as illustrated on Figure 4 in Wildlands Report 'Ecological Management Plan for the proposed Compensation Site at Gleeson Quarry, Huntly' dated May 2020.

You advised me via email 13/06/2022 that with regards the mitigation package offered via the letter from Paua Planning 18 August 2020 that:

"The site was issued with a formal warning on the understanding that they would undertake the ecological enhancement works offered."

During our site visit on 7 June 2022 a team of Envoco staff (who introduced themselves to us) were planting the gully of Compensation Area 4. We saw:

1. A recently installed fence encircling the gully (some areas of exposed soil on the fence benches were not yet grassed).
2. Defoliated grey willow trees in MUs 2a and 2b¹¹ of the Wildlands EMP.
3. No pest plants in MU 3d.
4. Desiccated native swamp millet in MU 6.
5. Carex sedges and other native species had been planted in the wetland (under dead grey willow in Planting Area 10 and among desiccated native swamp millet in Planting Area 9).
6. Several predator traps had been installed.
7. Planting on side slopes and additional plants stacked presumably for subsequent planting.

The first five of these activities match the mitigation package offered for the unconsented drainage works in Fill Area 3¹². As such, those five activities are not compensation for future adverse ecological effects in Fill Areas 2 and 4, for any remaining areas of wetland within Fill Area 3 as of June 2022 and for two small wetland areas downstream of the proposed sediment retention ponds.

During my 7 June 2022 visit to Compensation Area 4, two areas of grey willow trees were defoliated (totalling a little over 1230 m²), and Planting Area 9/ MU 6 was composed almost entirely of native swamp millet that was yellow-brown but flowering to enable easy identification (see Figure 1). Figure 20 in the Envoco 2022 Ecological Mitigation Monitoring Report shows that Area 9 was green in March of 2022. Area 9 was mapped as Mercer grass, and blanket spraying was advised, in the 2019 EMP (s7.2.7 and s9.3).

Envoco staff informed us that the willow had been controlled in the spring of 2021 (Ohara McLennan pers. comm. 7 June 2022). Their 2022 report states they sprayed what they described as an area of exotic Mercer grass with a spray gun using 100 g/litre haloxyfop-P present as haloxyfop-P-methyl (no date provided but the area was green in March 2022 and brown by June 2022, see Figure 2). That area is the desiccated native swamp millet that I saw on 7 June 2022. It is not feasible for that area to have been green exotic Mercer grass in

¹¹ Note this is mapped as MU 2 on page 16 of the EMP, I am treating that as MU 2b.

¹² Letter from Kate Madsen, Paua Planning to Emma Cowan, Waikato Regional Council, 18 August 2020

March 2022, later sprayed with a grass-specific herbicide that remains active in the soil with a 12-week withholding period, and then self-established as a native grass species, grown to over 50 cm height, flowered, and then browned off by 7 June 2022.

Therefore, I believe the grass that was sprayed between March 2022 and 7 June 2022 (based on Figure 20 of the Envoco report) was not exotic Mercer grass, but was instead native swamp millet. This was later confirmed by Envoco¹³.

The area of grey willow sprayed was at least 1230 m² (per the EMP) and the area of swamp millet was 2,000 m² (per the EMP, but described in that report as exotic Mercer grass in 2019). Since September 2020, resource consent has been required to spray in excess of 500 m² of vegetation of any type in a natural wetland under the NES Freshwater Management. I do not support the interpretation by Paua Planning (Appendix 12.10) that spraying willow with chemical but leaving it standing to decay within a wetland falls outside the NES definition of vegetation clearance. As acknowledged by Paua Planning in Appendix 12.10, the NES definition of vegetation clearance includes destruction of vegetation via application of chemical and does not require that the vegetation be physically removed to be considered 'clearance'. "*vegetation clearance—(a) means the disturbance, damage, destruction, or removal of vegetation by any means (for example, by cutting, crushing, application of chemicals, or burning); and (b) includes activities that result in the disturbance, damage, destruction, or removal of vegetation ..;*" Bold my emphasis.

The spraying of native swamp millet would likely also have required a resource consent from Waikato District Council for clearance of indigenous vegetation outside of a SNA, unless the council had certified it as not significant prior to spraying.

If the activities offered and conducted by the applicant to mitigate the loss of unconsented wetland drainage in Fill Area 3 are discounted, the following activities remain on the table to compensate all proposed adverse ecological effects other than bats (covered by a separate management plan):

1. Weed control other than MUs 2a, 3d and 6.
2. Pest animal control.
3. Riparian/terrestrial planting (i.e., other than areas 9 and 10).
4. Ongoing weed and pest control

With regards to wetlands, the residual offsets include a small patch of grey willow in MU 2 (< 200 m², my estimation), and a small area of wetland edge planting in PAs 7&8 (215 *Carex virgata* plants, amounting to approximately 100 m² of wetland species planting).

Some of the above activities had already occurred during my June 2022 site visit to assess the application, and a decision will need to be made regarding whether these can be considered as advance compensation.

4 Assessment of Effects

The EIA prepared by Boffa Miskell 14 November 2019 states that.

¹³ Response to WDC Memo Re: Gleeson and Cox Fill Consent Application: Wetland Ecological Effects. Karen Denyer, July 2022. Response prepared by Ohara McLennan (Ecologist, Envoco Ltd) for Kate Madsen, Paua Planning Ltd. "*Although swamp millet was removed,..*"

Within the footprint of the proposed new land-use, areas of gorse-dominated or native broadleaved early successional scrub, exotic forest/treeland, wetland vegetation and pasture grassland were identified.

The proposed new fill areas provide a range of different habitats that may be utilised by a variety of native fauna species. This includes but is not limited to; herpetofauna species such as copper skink; Threatened or At Risk bird species utilising wetland or ungrazed grassland habitat features on the Site; the Threatened – Nationally Critical long-tailed bat likely utilising vegetation on the Site for commuting, foraging and/or roosting; and shortfin eels that have been observed in the three identified wetland areas.

The proposed change in land-use will result in the staged removal of:

- *Large areas of gorse-dominated early successional scrub;*
- *Large areas of pasture grassland;*
- *A notable proportion of native broad-leaved early successional scrub including the occasional large native tree;*
- *Two small areas of exotic forest/treeland;*
- *1,530 m² wetland habitat present on site;*
- *525 m ephemeral waterway; and*
- *90 m intermittent waterway.*

The habitat loss outlined above will result in the loss of associated habitat for herpetofauna, bird, bat and freshwater fauna habitat.

The EIA concludes (s 5.4) that “Native and exotic forest stands and wetland features within the site have been assessed as of high or very high potential value for herpetofauna, avifauna and bats under EIANZ guidelines (2018), and meet significance criteria outlined in the Waikato Operative District Plan significance criteria.” They EIA also recommend fauna surveys be conducted to “provide a more accurate assessment of the vegetation habitat value and significance.”

With the exception of lack of bat and lizard fauna surveys (due to the seasonal constraints of the Boffa Miskell field assessments as expressed in the EIA), and quantification of the areas of terrestrial vegetation that will be cleared, the EIA methodology is sound and reasonably comprehensive.

In general, I agree with the broad scale and list of impacts described in the EIA, but consider the extent of wetland area in FA3 at the time of the EIA report to be significantly under-reported, and two additional areas of wetlands below FA 2 and 4 not assessed. These and areas of terrestrial habitat loss should have been included in Table 15: Summary of potential effects on vegetation, to fairly assess the compensation offered.

4.1 Terrestrial vegetation

The EIA describes, but does not map or quantify, areas of terrestrial vegetation that will be impacted by the proposed activities. Envoco later conducted this work to a competent standard and quantified the loss of indigenous terrestrial vegetation as 3327 m². Most of the affected vegetation is dominated by exotic species, although some may have indigenous understory, and Envoco notes the presence of native broadleaved early successional scrub, and nine scattered mature canopy trees (likely remnant trees around which indigenous scrub has regenerated). These occur within the footprints of Fill Areas 2 and 4. Clearance of

these sites will likely require a restricted discretionary consent from the Waikato District Plan (Proposed District Plan rule ECO-R16) and may require a discretionary consent from WDP Operative Plan (25.43A.2). I consider the proposed terrestrial and riparian planting in Compensation Area 4 is an adequate offset for the loss of terrestrial vegetation.

4.2 Herpetofauna

Copper skink (*Oligosoma aeneum*) were considered by Boffa Miskell to be likely present in areas of Secondary Podocarp-broadleaf forest, although that habitat is not anticipated to be affected by this application, as the EIA notes in footnote 1 “*The proposal initially included an additional potential fill site, referred to as Site 1, which has now been omitted from the proposal.*” When the EIA was prepared this species was classified as Not Threatened. The threat status was revised in 2021 to At Risk-Declining¹⁴. No lizard surveys were conducted for the EIA due to seasonal constraints. Given the increased threat status of this species, and requirements under the Wildlife Act 1953, pre-activity search and salvage is recommended, and may be legally required. Capture and relocation has been used in other developments in New Zealand, however there needs to be a suitable location to relocate the individuals to.

It is recommended that a lizard salvage and mitigation plan be developed and implemented as a condition of consent. This should include post-translocation monitoring and proposed predator control. The applicant proposes to prepare a Lizard Management Plan for Fill Area 4, but not FA 2 or 3 (Paua Planning 12 July 2022). During my site visit I saw a live lizard among the grass just above the channel below FA 2. I was not able to confirm species because close examination is required to distinguish lizard species and I do not hold a permit to capture or handle live lizards. However, I had a clear enough sighting to determine that it was a lizard, and this does indicate the presence of at least one lizard in the FA 2 catchment.

The EIA states that: *Other habitats of lesser value also have potential to support significant indigenous fauna populations. These assessments are precautionary and based on habitat availability without the benefit of survey data. We recommend fauna surveys to provide a more accurate assessment of the vegetation habitat value and significance.*

Boffa Miskell (2019) also state, and Paua Planning (July 2022) re-states that “*non-threatened ground dwelling lizards may however be present at Fill Areas 2 and 4.*”, however, the EIA is now three years old and the ‘non-threatened ground dwelling lizards’ referred to on pg 37 of the AEE, i.e. copper skinks, are now classified as ‘At Risk-Declining’ in the national threat classification system.

4.3 Native bats

The EIA recommended a bat survey be undertaken. A bat survey was conducted by Wildland Consultants Ltd in 2019 and confirmed the presence of Nationally Critical long-tailed bats (*Chalinolobus tuberculatus*) in Fill Area 4, and potentially present in other potentially affected areas.

A bat management plan was prepared by Wildland Consultants in February 2020. The BMP is detailed and sound, my only comments are relatively minor:

¹⁴ Rod Hitchmough, Ben Barr, Carey Knox, Marieke Lettink, Joanne M. Monks, Geoff B. Patterson, James T. Reardon, Dylan van Winkel, Jeremy Rolfe and Pascale Michel. 2021. Conservation status of New Zealand reptiles, 2021. NEW ZEALAND THREAT CLASSIFICATION SERIES 35. Published by Department of Conservation Te Papa Atawhai, Wellington.

- a) it should specifically state in s5.4 that acoustic monitoring will take place in the appropriate season (1 October-30 April, inclusive).
- b) It should include in annual monitoring (s6.3), checks on, and if necessary adjustments to, the tree bands above and below the artificial roosts to account for tree girth growth and maintain predator exclusion.
- c) It should specify the mechanism that will be pursued to protect, in perpetuity, a bat reserve utilising exotic pines.

Best practice guidelines for artificial bat roosts have been developed for New Zealand and could be referred to as a condition of consent¹⁵.

Activities in Compensation Area 4 are not needed to mitigate adverse effects on native bats if this BMP is approved and if it, and the above points, are incorporated into conditions of consent.

4.4 Avifauna

The EIA noted use of the site by common bird species, and that matches my casual observations during the site visit. Some habitat will be lost, but if clearance activities are conducted outside of breeding season, it is unlikely that any indigenous birds will be fatally affected and offsite planting of habitat to compensate for their habitat loss will result in no more than minor effects.

The wetlands affected by the proposal are very small and exposed to predators, and therefore unlikely to be successful breeding sites for wetland avifauna. However, as with terrestrial vegetation clearance, wetland drainage and vegetation clearance activities should ideally occur outside of the breeding season, as recommended by the EIA.

Two native bird species classified as “At Risk” were also reported in the EIA. A New Zealand pipit was seen in the retired pasture at Fill Area 3 while a pied shag was observed flying overhead near Fill Area 2. These transient, mobile species are unlikely to be directly impacted by the proposal, however as NZ pipit nest in long grass, they will be potentially at risk of fill operations on an ongoing basis during their nesting seasons. It would be impractical to annually control all activities during their breeding season to avoid the very low potential that a nest or nesting bird may be at risk.

4.5 Wetlands

The EIA assesses the affected wetland condition as low, but does not provide a correct condition assessment¹⁶. However, in the context of the Waikato RPS policies, wetland condition is irrelevant if the wetland supports a community of indigenous species. The EIA states that the wetlands in the fill areas meet the WRPS criteria for significant wetland (e.g., see pg 39). They support indigenous plants, native short-fin eels and indigenous macroinvertebrates, e.g. *Chironomus zealandicus*, an endemic species.

¹⁵ New Zealand Bat Recovery Group Advice Note – The Use of Artificial Bat Roosts. 18 October 2021

¹⁶ Dominance of native vegetation appears to be based on the areas surrounding not within the wetland, for example Fill Area 3 the wetland vegetation condition is described as “*Canopy species replaced by harvested pine*”.

The quantum of wetland loss reported in Boffa Miskell¹⁷ in the footprint of Fill Areas 2, 3, and 4 (1530 m²) is less than that later mapped by Wildland Consultants (1869 m²)¹⁸ and I consider that both significantly underestimate the total area of wetland involved when the full loss from FA3 is taken into account.

	EIA Boffa Miskell 2019	Wildland Consultants (reported in Stantec 2021)	My assessment
Fill Area 2	450 m ²	570 m ²	Accept area similar to WC, but also small area of wetland downstream, as shown on the ESC Plan VE.
Fill Area 3	700 m ²	815 m ²	Boffa M and WC only included the area of pond, not the area dominated by native wetland rush prior to drainage. Boffa Miskell report that a <u>large part</u> of 4.2 ha was regularly inundated and dominated by native wetland rush. Prior to drainage area was likely closer to 10,000 m ² based on my observations via G Earth time series.
Fill Area 4	380 m ²	484 m ²	Accept area similar to WC, but also small area of wetland downstream, as shown on the ESC Plan VE.
Total	1530 m²	1869 m²	Possibly in excess of 11,000 m² including the full area of wetland in FA 3 prior to drainage.

In response to a s92 further information request, Kate Madsen (Paua Planning) clarified that the applicant accepts the wetland extend figure provided by Wildland Consultants and reported in the Stantec report, i.e. the higher figure of 1869 m² of wetland affected.

Prior to unconsented drainage the area of wetland in FA3 would likely have been much greater than the 700 m² reported by Boffa Miskell, because they state that a large part of the 4.2 ha (42,000 m²) area was relatively regularly inundated and dominated by the native wetland rush *Juncus edgarii*. The pond alone was clearly approximately 700 m² based on multiple time series images from Google Earth prior to drainage (see Figure 4). Areas of brown vegetation in multiple GE images indicate the area likely covered in the native rushland described by Boffa. Conservatively I estimate it to be approximately 10,000 m² (one quarter of the area described by Boffa). In some images it looks much larger. It appears that the inundated paddock dominated by native wetland rush was not included in the quantum of wetland in FA3 prior to drainage.

The EIA, Stantec report and a letter to Josh Evans, Waikato Regional Council, 10 June 2022, also variously refer to wetlands downslope of the constructed ponds in FA 2 and 4, but there has been no apparent assessment of them. During my site visit I also saw small areas of wetland vegetation in the watercourses within 200 m downstream of the bunds in FA2 and FA4. Neither of these sites appear on the map in the EIA *Appendix 1: Site context and*

¹⁷ Boffa Miskell, 2019 EIA Appendix 6: Wetland condition features

¹⁸ According to a report by Stantec to Gleeson Group, 24 December 2021

*ecological features of the proposed new fill areas*¹⁹, but have been added to recent versions of the Erosion and Sediment Control Plans (rev E). They are within 100 m of the proposed sediment retention ponds and may be impacted by construction and operation of those structures, triggering NES-FM s54. They therefore require assessment, quantification and potentially inclusion in the offset metric.

Further clarification is required regarding:

- An accurate measure of the extent of wetland area that meets the WRCP significant wetland criteria that will be impacted by the proposed works (including during or as a result of construction of sediment ponds).
- An assessment of the two areas of wetland downstream of the ponds in FA2 and FA4, seen by me, reported by Wildland Consultants according to Stantec, and mapped on the ESC Plans rev E, to determine if they meet the NES natural wetland definition or the WRC significant natural area definition.
- Whether the presence of wetlands within 100 m of the sediment retention ponds triggers NES-FM rule 54 – damming and discharge of water to a natural wetland.

I have not assessed aspects of water quality, fish fauna, or aquatic habitat, these being outside my field of expertise.

5 Ecological mitigation/compensation

5.1 EIA recommendations

Boffa Miskell (14 November 2019) recommend the following actions to mitigate the ecological impacts of the activities:

- *Undertake avifauna and long-tailed bat surveys enabling a completed comprehensive assessment of effects that will facilitate determination of appropriate management;*
- *Preparation and implementation of a Fauna Management Plan which outlines strategies to avoid, minimise, remedy or mitigate any potential adverse effects on native fauna;*
- *Creating wetland habitat at a ratio of 1:1 to mitigate for the loss of 1530 m² total wetland area; and*
- *Implementation of an appropriate fill management as well as erosion and sediment control plan to avoid any discharge effects on downstream freshwater receiving environments*

Table 1 presents a summary of compensation offered in relation to the ecological effects on terrestrial and wetland habitats and fauna.

My understanding is that avifauna and lizard surveys have not been conducted, nor a Fauna Management Plan provided for these taxa. A long-tailed bat survey has been completed and a Bat Management Plan (Wildland Consultants 2020) provided. Compensation for bats has already been discussed in section 4. A lizard management plan has been offered by the applicant (s 16.2.6, Paua Planning, 12 July 2022), and this should be included as a condition of consent.

¹⁹ See Boffa Miskell, 2019, EIA; Appendix 10: Proposed fill sites and sediment treatment ponds locations. GLEESON QUARRIES LTD - HUNTLY QUARRY PROPOSED FILL SITES - EROSION & SEDIMENT CONTROL.

The recommendation to create wetland habitat at 1:1 ratio was not adopted by the Ecological Management Plan for the Proposed Compensation Site (Wildlands 2020) which instead proposed wetland enhancement and whole gully restoration.

5.2 Compensation offered

Regarding offset mitigation, WRC policy is (s 11.2, Waikato Regional Policy Statement) to “ensure that remediation, mitigation or offsetting as a first priority relates to the indigenous biodiversity that has been lost or degraded (whether by on-site or off-site methods).” The WRPS does allow for an option to “develop or enhance areas of alternative habitat supporting similar ecology/significance”. However, there is a clear direction in the WRPS advice notes that: “When applying Method 11.2.2, the expectation is that proposals should **reasonably demonstrate that no net loss has been achieved**”.

An Ecological Management Plan for the Proposed Compensation area was prepared by Wildland Consultants (May 2020). Many of the activities proposed had already been completed as of 7 June 2022, and, with the exception of some weed control, terrestrial and minor wetland edge planting, and animal pest control, match those proposed by Paua Planning (letter to Emma Cowan 18 August 2020) to compensate the loss of wetland from Fill Area 3 which states:

“This letter is to confirm with Waikato Regional Council mitigation offered by Gleeson in regard to the premature draining of a farm pond located at the northern end of Gleeson’s landholdings (north of the quarry) which was undertaken during geotechnical investigations.”

The stated mitigation activities offered were:

- *Fencing around entire compensation area: see Figure 1 in Wildlands Report ‘Ecological Management Plan for the proposed Compensation Site at Gleeson Quarry, Huntly, dated May 2020’*
- *Complete initial pest plant control in Management Units 2a, 3d and 6: see Figure 2 in Wildlands Report ‘Ecological Management Plan for the proposed Compensation Site at Gleeson Quarry, Huntly, dated May 2020’*
- *Planting of Areas 9 and 10 as illustrated on Figure 4 in Wildlands Report ‘Ecological Management Plan for the proposed Compensation Site at Gleeson Quarry, Huntly, dated May 2020’*

Discounting activities already conducted to mitigate unconsented works, there is little ecological gain for wetlands to be made from Compensation Area 4. The dryland planting is suitable mitigation to offset the loss of riparian vegetation and terrestrial habitat from Fill Areas 2 and 4, but does not offer like for like wetland loss compensation.

Even prior to the works conducted to mitigate the unconsented loss of wetland from FA 3, there was little to be gained in terms of wetland compensation from the EMP proposal to mitigate the loss of wetland values. The EMP states that “it will be difficult to demonstrate an increase in ecological values by restoring the indigenous-dominated wetland habitats.” Most of the wetland in the compensation area was indigenous-dominated during my visit in June 2022. A 2000 m² area described in the EMP as exotic grassland dominated by Mercer

grass (*Paspalum distichum*) was, in 2022, indigenous grassland dominated by swamp millet (*Isachne globosa*)²⁰ (see Figure 1).

The native swamp millet looked extremely desiccated during our visit on 7 June 2022, likely the result of spaying described by Envoco in their 2022 report (see Figure 2), in potential breach of the NES-FM. Destroying native wetland vegetation is not permitted under the NES-FM, and cannot be considered as compensation for loss of other areas of wetland.

The area of native swamp millet should not have been sprayed and did not require planting. It was already an area of indigenous vegetation typical of induced wetlands in hill-country areas formerly denuded of terrestrial vegetation, albeit grazed in 2020. Raupo is likely to spread following removal of grazing, resulting in a raupō-swamp millet reedland. While the fencing has no doubt allowed the grass to grow taller and healthier, it did not result in any wetland creation to offset loss of wetland habitat extent, and per the mitigation letter (18 Aug 2020) was undertaken to mitigate unconsented drainage works in Fill Area 3.

5.3 Quantum of compensation

The total area of wetland loss has not been fully accounted for. It excludes small areas of wetland below FA2 and FA4 bunds, and it is unclear if these will be adversely affected by the proposal.

Further, the area of wetland that will be restored to indigenous vegetation is over-estimated by the applicant. Paua Planning (12 July 2022) state that (s16.5.4) within the proposed compensation areas *“five wetland habitat types (two indigenous and three largely exotic) were identified, totalling 5,816 m², resulting in a restoration ratio of 8:1 (gain:loss)”*, and that the compensation package will include: *“Pest plant control and planting in 3,958 m² of degraded exotic wetland vegetation to create WF8 – kahikatea-pukatea swamp forest.”*

Both statements are incorrect.

There were four indigenous habitats and only 1230 m² was degraded by a canopy of exotic species (grey willow). One of the five habitats described as exotic Mercer grass by Wildland Consultants 2020, was indigenous swamp millet when I visited in 2022. Therefore, there was not 3,958 m² of degraded exotic vegetation when the application was lodged, only 1230 m².

The wetland in Compensation Area 4 offered only 1230 m² of non indigenous-dominated wetland habitat within which to offset the entire quantum of wetland loss (potentially in excess of 11,000 m² including the unconsented losses from FA3). Furthermore, almost all of that offset quantity was offered in 2020 to mitigate FA 3 drainage.

While the residual activities of animal pest control and riparian planting can contribute to an improvement in wetland *quality* within the compensation site, they do not offer like for like compensation to mitigate loss of wetland *quantity*.

²⁰ During the site visit on 7 June 2022, I found that area that the EMP refers to as Vegetation Type 10/ Management Unit 6/Planting Zone 9 comprising 70% exotic Mercer grass, was 90% native swamp millet, some of it over 1 m in height, with sedges interplanted across the entire swamp millet zone.

5.4 Legal protection of the compensation areas

The EMP states that the “*proposed compensation site has been identified as a Significant Natural Area (SNA_16743) and therefore has legal protection under the Waikato Regional Council Regional Policy Statement 2018.*”

I disagree with this statement for two reasons:

1. The wetland areas are not fully within the SNA in the WDP (see Figure 3).
2. Areas of vegetation within SNA's are not absolutely protected in perpetuity. Under the Proposed Waikato District Plan, certain vegetation clearance activities within SNAs are permitted or controlled, including clearance for firewood, building, access, parking and manoeuvring areas. Beyond that any clearance can occur subject to a discretionary consent – and therefore the SNA has no greater legal protection than the wetland areas proposed for infilling for which discretionary consent is being sought.

I note however that the applicant has offered to permanently protect the compensation area via private covenant on title (s 21.8.3, Puaa Planning, 12 July 2022). That is an appropriate action and should be included as a condition of consent.

5.5 Compensation summary

- The riparian planting proposed in the EMP is an adequate offset for the loss of riparian vegetation and habitat from the fill areas.
- None of the proposals in the EMP will result in creation of additional areas of open water/sedgeland to replace those areas and habitats that will be lost from the fill areas.
- After discounting the works already undertaken to compensate the unconsented loss of Fill Area 3 (possibly 10,000 m² of wetland area), the residual proposed compensation activities for the future loss of 1869 m² comprise a very small area of grey willow control within MU 2²¹, and ongoing weed control and predator trapping for an unstated duration (minimum 6 years). This is not like for like compensation to offset the loss of at least 1869 m² of wetland.
- The proposed compensation activities will not be absolutely legally protected in perpetuity via the Proposed Waikato District Plan. I understand that the applicant has proposed legal protection as a condition of consent.

5.6 Additional offset opportunities

During my site visit I saw a small area of exotic wetland near the confluence of the two upper gullies in the compensation area. This was approximately 100 m² and dominated by exotic Yorkshire fog (*Holcus lanatus*) and blue sweet grass (*Glyceria declinata*). It could be restored to indigenous wetland as a partial offset contribution.

Further, there may be opportunities to create offset wetlands in association with the proposed sediment ponds below the fill sites. That would provide for onsite compensation,

²¹ Note this is not the 1230 m² area of grey willow in MU 2a conducted to mitigate drainage of FA3, it is a small infestation within Veg Type 3.

in effect moving the location of the existing ponds with their associated indigenous vegetation downslope. It would provide compensation within the same catchment, of the same ecosystem type, and of the same vegetation type, while at the same time providing for sediment retention. These could be constructed prior to infilling of the wetlands, providing immediate alternative habitat for indigenous wildlife.

Table 1: Assessment of proposed compensation works

Compensation proposal	Details	Area_m ²	Compensates	Notes	Determination
Bat Management Plan	Creation of bat reserve with artificial roosts and monitoring	n/a	Loss of bat habitat	Wildlands BMP 2022	Adequate compensation with conditions to ensure best practice management and legal protection
Pest management control (EMP)	Predator control for at least 6 years	c40,000	Lizard /bird direct and indirect mortality from habitat clearance and loss	Lizard monitoring and salvage may be required under the Wildlife Mgt Act	Compensation for avian/lizard potential mortality and habitat loss.
Area 1-8 planting (EMP)	Terrestrial planting, stated as buffer to protect wetland	7084	Loss of indigenous terrestrial vegetation, loss of lizard/ bird habitat	Works may have been completed prior to the application being processed.	Compensation for loss of indigenous riparian vegetation, currently unable to assess if quantity is appropriate. Increases total ecosystem quality / diversity but does not directly offset wetland loss.
Weed control –MUs 1 a-d, 3 a-e, 4 (EMP)	Dryland weed control	ns	Maintenance of areas planted to offset terrestrial vegetation, loss of lizard/bird habitat	Quality vs quantity compensation	Maintenance of indigenous terrestrial vegetation and habitat offsets.
Weed control MU 2b and 5 (EMP) – note 2b is mapped as 2 in the EMP Fig 2.	Greater bindweed and grey willow control in Veg Types 3 and 4.	ns	Wetland loss – in a few small areas where exotic wetland vegetation can be replaced with natives vegetation	I did not see greater bindweed in this location. The willows had already been sprayed by June 2022 and was a small area. The upper wetland has a weedy area that could be included as a compensation site.	Potential compensation sites, but small in area. The willow infestation in MU 2b is small (< 200 m ² pers obs). An additional 100 m ² area of exotic wetland in the upper end of MU5 could be converted to indigenous wetland as an offset. It is dominated by <i>Holcus lanatus</i> and <i>Glyceria declinata</i> . That would create a small area of new indigenous wetland habitat in an area of exotic wetland habitat.

Compensation proposal	Details	Area_m ²	Compensates	Notes	Determination
Weed control – MU 2a, 3d, 6 (EMP)	Pest plant control includes grey willow, privet, gorse etc	ns	Unconsented wetland drainage – letter from Paua Planning, 18/8/2020	Offered by the applicant as mitigation for unconsented works. Also included Mercer grass however the area mapped as Mercer grass was native swamp millet when planted in 2022	Not compensation. Activity was mitigation for unconsented works prior to the application being lodged.
Area 9 planting (EMP)	Planting in an indigenous wetland	1500 (of 2000 total)	Unconsented wetland drainage – letter from Paua Planning, 18/8/2020	Area was not exotic grass as described in the EMP at time of planting. It was indigenous wetland vegetation that has been sprayed without consent.	Not compensation. Activity does not offset wetland loss. Site was already indigenous wetland vegetation.
Area 10 planting/ weed control (EMP)	Planting	900	Unconsented wetland drainage – letter from Paua Planning, 18/8/2020	Offered by the applicant as mitigation for unconsented works	Not compensation. Activity was mitigation for unconsented works prior to the application being lodged.
Fencing (EMP)	Fencing entire compensation area	c40,000	Unconsented wetland drainage – letter from Paua Planning, 18/8/2020	Offered by the applicant as mitigation for unconsented works	Not compensation. Activity was mitigation for unconsented works prior to the application being lodged.
Ongoing weed control (EMP)	Pest plant control for at least 6 years	c40,000	Maintenance of terrestrial vegetation offsets.		Maintenance of terrestrial vegetation offsets. Improves wetland quality but not like for like offset for loss of wetland quantity.

6 Ecological monitoring

- The EIA had no reference to conducting ecological monitoring other than success monitoring for released lizards (if any).
- The EMP (Wildland Consultants 2020) includes reference to trap catch/bait take monitoring of pests, but no monitoring for residual pests (including bait/trap shy individuals), nor any monitoring of native species to assess the benefits of the restoration activities. The EMP includes requirements to monitor and report on weed control operations and effectiveness.
- The Bat Management Plan includes a period of 15 years monitoring of the effectiveness of artificial bat roosts, but should also include checks on the effectiveness of the predator bands protecting them.
- The Envoco report 2022 includes monitoring activities that have been undertaken and proposed. The proposals are a good starting point for an Ecological Monitoring Plan, although use of leg-hold traps is not advisable so close to residences where domestic pets may be at risk (permission must be sought from all properties within 150 of the traps).

If consent is granted it is recommended that an ecological monitoring plan be prepared and implemented, including annual reports sent to the relevant Council outlining outcomes and outputs of activities, such as:

1. Kill trap and bait take records.
2. Residual pest records, using industry best practices such as chew card and tracking tunnel detection devices for at least one round of predator detection per year.
3. Weed control methods as proposed in the EMP.
4. Planting survival records for at least three years and annual photo-points.
5. Area of new wetland created.

7 Benefit to the Waikato River catchment

Under the Waikato-Tainui Raupatu Claims (Waikato River) Settlement Act 2010, on and from the commencement date, the vision and strategy for the Waikato River (Te Ture Whaimana o Te Awa o Waikato Waikato-Tainui) in its entirety is deemed to be part of the Waikato Regional Policy Statement without the use of the process in Schedule 1 of the Resource Management Act 1991.

Regarding ecological impacts of the proposal, the following are particularly pertinent:

- (a) the restoration and protection of the health and wellbeing of the Waikato River:
- (e) the integrated, holistic, and co-ordinated approach to management of the natural, physical, cultural, and historic resources of the Waikato River:
- (f) the adoption of a precautionary approach towards decisions that may result in significant adverse effects on the Waikato River and, in particular, those effects that threaten serious or irreversible damage to the Waikato River:
- (g) the recognition and avoidance of adverse cumulative effects, and potential cumulative effects, of activities undertaken both on the Waikato River and within the catchment on the health and wellbeing of the Waikato River:

- (h) the recognition that the Waikato River is degraded and should not be required to absorb further degradation as a result of human activities:
- (i) the protection and enhancement of significant sites, fisheries, flora, and fauna:
- (j) the recognition that the strategic importance of the Waikato River to New Zealand's social, cultural, environmental, and economic wellbeing requires the restoration and protection of the health and wellbeing of the Waikato River:
- (k) the restoration of water quality within the Waikato River so that it is safe for people to swim in and take food from over its entire length:
- (m) the application to the above of both maatauranga Maaori and the latest available scientific methods.

Adverse impacts on water quality are outside my area of expertise, but with reference to the potential positive impacts, the EMP (Wildland Consultants 2020) states that the compensation activities of excluding stock and providing vegetated buffers to streams and wetlands will *“improve water quality by reducing sediment and nutrient runoff into the aquatic habitats, and minimise stream bank erosion. Increased shading of the water surface improves the in-stream environment for aquatic fauna by cooling the water.”*

And that the proposed restoration will *“improve habitat and spawning success for the adult fish in the tributary at the study site”*. The EMP did not include fish surveys, or report on any fish species present within the compensation site, there is therefore no evidence to support the statement that the proposed works will benefit native fish. Envoco identified barriers to fish passage including a perched culvert at the lower end of the wetland and recommended retrofitting the culverts with fish ladders.

The waterway from the compensation area flows into Lake Waahi, prior to reaching the Waikato River. Lake Waahi is supertrophic (highly nutrient enriched) and the compensation works along an 850 m stretch of waterway will have little potential to contribute to significant improvements in fish habitat and water quality in the Waikato Catchment.

8 Policies and rules

8.1 Regional policies

A list of the most relevant regional policies and objectives has been completed by Lyndsey Smith, Aecom, in a letter to Kathryn Drew, BBO, 22 January 2020. These remain relevant but note that WRC has commenced a review of the Waikato Regional Plan and the Waikato Regional Policy Statement to give effect to the National Policy Statement for Freshwater Management (NPS-FM) 2020. A new Policy 3.A.2: Natural inland wetlands was inserted into the regional plan stating that: *The loss of extent of natural inland wetlands is avoided, their values are protected, and their restoration is promoted, except where...*

(b) the regional council is satisfied that:

the activity is necessary for the construction or upgrade of specified infrastructure; and the specified infrastructure will provide significant national or regional benefits; and there is a functional need for the specified infrastructure in that location; and the effects of the activity are managed through applying the effects management hierarchy.

8.2 Regional rules

The wetlands are acknowledged in the EIA as meeting at least two of the WRPS criteria for significant areas²², and therefore trigger the following rules:

3.7.4.7 Discretionary Activity Rule – Drainage of Wetlands.

3.5.4.6 Non-Complying Activity Rule – Discharges into other Water Bodies

The discharge* of contaminants (not including stormwater or contaminants associated with the take and use of geothermal water), into Natural State Water Bodies or wetlands that are areas of significant indigenous vegetation and/or significant habitats of indigenous fauna or cave entrances or lakes (excluding artificial lakes and Lake Rotoaira) is a non-complying activity (requiring resource consent).

* Discharge includes emit, deposit, and allow to escape.

* Contaminant includes any substance (including gases, liquids, solids, and microorganisms) or energy (excluding noise) or heat, that either by itself or in combination with the same, similar, or other substances, energy or heat:

- when discharged into water, changes or is likely to change the physical, chemical, or biological condition of water, or
- when discharged onto or into land or into air, changes or is likely to change the physical, chemical, or biological condition of the land or air onto or into which it is discharged.

However, if consent is given to drain the wetlands, rule 3.5.4.6 would not apply if the fill was placed in the location after drainage.

On 30 June 2021, in accordance with s55(2A) and Clause 20A (Schedule 1) of the Resource Management Act 1991, the Waikato Regional Plan was amended to: insert clauses 3.22(1) natural inland wetlands, 3.24(1) rivers and 3.26(1) fish passage of the National Policy Statement for Freshwater Management 2020 resulting in new objective 3.A.1 and new policies 3.A.2 and 3.A.3; address accompanying consequential minor edits.

8.3 National policies and rules

The NPSFM (National Policy Statement for Freshwater Management) requires councils to map, monitor and control activities in and around natural wetlands. Non-complying rules apply to activities that would result in loss of or damage to natural wetlands under the NESFM (National Environmental Standards for Freshwater Management).

The NPSFM 2020 defines natural wetlands as:

*“ a wetland (as defined in the Act) that is not:
 (a) a wetland constructed by artificial means (unless it was constructed to offset impacts on, or restore, an existing or former natural wetland); or
 (b) a geothermal wetland; or*

²² Page 1, EIA “Several wetlands are present within the Site, which meet Waikato Regional Council RPS Section 11a criteria for ecological significance.” And Page 39 “The site’s wetland areas are considered significant as outlined within criteria 4 and 6 under the WRC Regional Policy’s Statement criteria.”

(c) any area of improved pasture that, at the commencement date, is dominated by (that is more than 50% of) exotic pasture species and is subject to temporary rain-derived water pooling “

The term “constructed by artificial means” is not defined in the NPSFM, however the Ministry for the Environment released guidance notes explaining that wetlands constructed by artificial means’ includes wetlands and waterbodies that have been deliberately constructed for a specific purpose and that may require maintenance over time (for example, vegetation or silt removal) to continue to fulfil that purpose. This includes areas of wetland habitat that have formed in or around any deliberately constructed waterbody. This exclusion is currently under review.

The guidance notes distinguish deliberately constructed wetlands from inadvertently induced wetlands²³. Exclusion (a) refers to deliberate actions intended to create or re-create a wetland (for whatever purpose), and does not include induced wetlands. Induced wetlands are those which are inadvertently/ unintentionally formed, exacerbated or modified as a result of either human actions - which may be direct, e.g. as a result of culvert installation, or indirect, e.g. climate change related extreme events - or by natural forces (e.g. earthquake, landslide, floods). The wetland in Fill Area 3 would meet the definition of an induced wetland (ie not deliberately created to act as a wetland).

The induced wetland in FA3 was drained prior to the enactment of the NESFM.

A report by Stantec (24 December 2021) and an assessment by Nick Singers (1 March 2022) both conclude that the wetlands in Fill Area 2 and Fill Area 4 are constructed wetlands. I agree that the ponds in both fill areas were constructed, and they and the wetland vegetation at their margins are therefore also constructed. Both ponds were constructed more recently than the recollection of Mike O’Reilly (13 November 2020, in Stantec report), but nevertheless support his statement that the ponds were constructed.

I agree that the wetland upslope of the bund in Fill Area 4 is a constructed wetland. There is a marked change in topography above and below the bund which is not likely a natural feature. Assuming the topography above the bund matched that downslope, the area now under water would have been a steeply incised stream, and likely not supporting wetland vegetation. Bunding has impounded water and provided edges suitable for native *Carex* sedges to establish.

I also concur with the Stantec report and Singers that the wetland in Fill Area 2 comprises a pond constructed between 1973 and 1979 (based on Retrolens images 3674_B_16 and 5164_N-18). It is difficult to determine if this pond was constructed in an area of existing wetland at the time of construction. The Stantec report states that “*What cannot be verified is whether there was a natural wetland present prior to the formation of the pond*” but on the basis of topography considers it more likely to have been an ephemeral stream. Singers also considers it was not, and it does not appear to have been a wetland in 1957 (Retrolens SN 1030, a reasonably clear air photograph). However, the presence or otherwise of a small amount of pre-existing wetland over 50 years ago is difficult to conclusively and will likely remain a matter of conjecture.

²³ Defining ‘natural wetlands’ and ‘natural inland wetlands’ Guidance to support the interpretation of the National Policy Statement for Freshwater Management 2020 and the Resource Management (National Environmental Standards for Freshwater) Regulations 2020

The ponds and associated margins are constructed wetlands and don't meet the NPSFM definition of natural wetland.

The small areas of native *Carex* and *Cyperus* sedges in ephemeral watercourses below the constructed ponds may meet the definition of natural wetland under the NPSFM, however it is unclear if these will be impacted by the operations. Based on version E of the ESCP's they lie outside but within 100 m downstream of the proposed sediment retention ponds, potentially triggering non-complying rule 54 of the NES-FM. Impacts on these wetlands have not been assessed.

9 Recommendations

At this stage I am unable to conclude that the effects will be no more than minor, largely because the compensation package, after discounting works undertaken to mitigate unconsented drainage in Fill Area 3, does not provide adequate mitigation for the loss of at least 1869 m² of significant wetland and because wetlands below FA 2 and F4 have not been assessed.

If consent is to be granted the following conditions are recommended:

1. A compensation plan be required that mitigates wetland loss on a like-for-like basis as proposed in the EIA, i.e. the loss of wetland area be compensated by the creation of an area of the same or larger extent elsewhere. This could potentially be incorporated into the proposed sediment ponds.
2. That any compensation area be subject to formal legal protection via an appropriate instrument linked to the title. If incorporated into the sediment ponds an allowance for maintenance activities would be required to allow the ponds to function as intended.
3. Lizard survey and salvage prior to and during habitat removal, to minimise mortality to any resident population. A suitable relocation site should be identified and secured (in terms of legal permission and from mammalian predators) prior to any works being undertaken.
4. Incorporate implementation of the Bat Management Plan as condition of consent with the requirement that it be compliant with best management practice for artificial roost management as outlined in: *New Zealand Bat Recovery Group Advice Note – The Use of Artificial Bat Roosts. 18 October 2021*. In particular specify that acoustic surveys be conducted in the appropriate season, that predator exclusion bands surrounding artificial roosts be inspected annually and adjusted as needed for 15 years, and that the bat reserve be subject to appropriate legal protection in perpetuity.
5. Require a monitoring plan be developed and implemented for the compensation works and reporting requirements incorporated as a condition of consent. This should include clear methodology, location of monitoring devices/plots and a timeline of monitoring activities including how many years each activity will be conducted for. There should be regular (at least annual) reports sent to Council to

be assessed by a suitably qualified ecologist. The Compensation Area Ecological Monitoring Plan should be approved by a suitably qualified ecologist for the council.



Karen Denyer
Director and Principal Ecologist
Papawera

APPENDIX 1: Figures

Figure 1: Native swamp millet (*Isachne globosa*), in the area described in the EMP as exotic grassland, Vegetation type 9. Image on the right shows browned off swamp millet and native *Carex* planting. The brown foliage could be the result of broadcast spraying as recommended in the EMP, or summer drought which can cause seasonal dieback of swamp millet.



Figure 20: Fencing progress around the wetland, looking north-west. March 2022.



Figure 15: Results of willow poisoning and spraying of Mercer grass in the wetland.

Figure 2: Native swamp millet in Compensation Area 4, Planting Zone 9, photos screen shot from Envoco report 2022. Left green foliage March 2022. Right sprayed (no date).



Figure 3: Wetland planting and weed control zones in Compensation Area 4 (left, from EMP) are outside the boundaries of the Waikato District Plan SNA (right, supplied by Julia Masters, Kinetic, 13 June 2022)

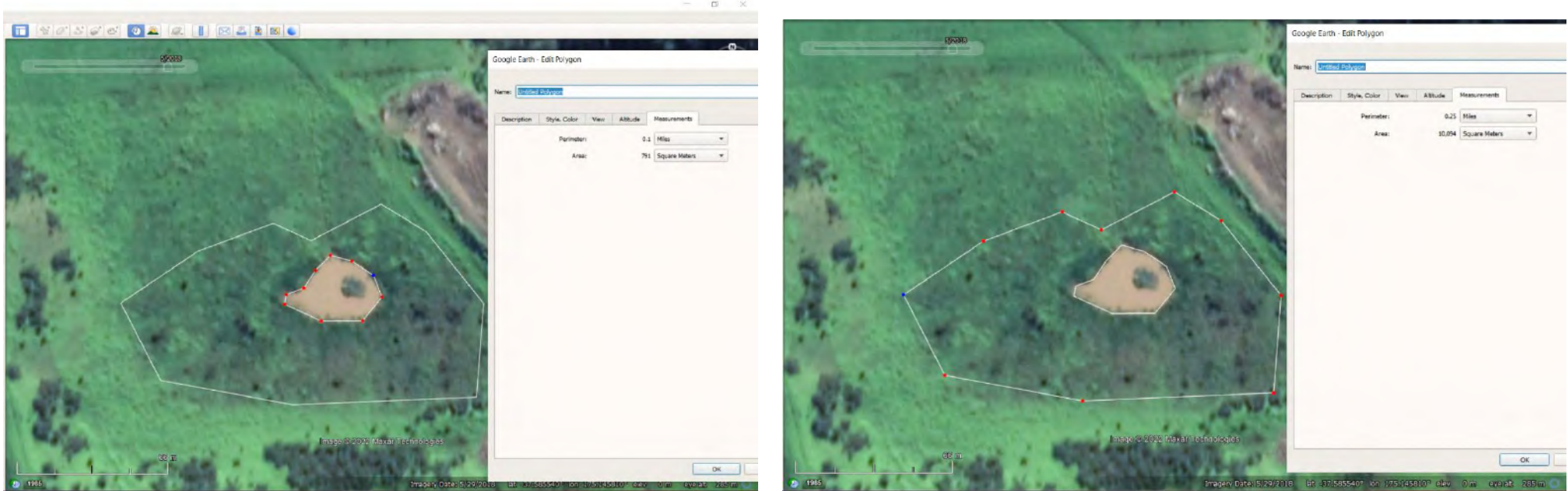


Figure 4: Fill Area 3 prior to drainage (2018, the most recent pre-drainage cloud-free image). The pond (left) is approximately 700-800 m² and accounts for the full amount of wetland reported here by Boffa Miskell in the EIA. The darker areas around the pond are likely the areas of native *Juncus* referred to by Boffa Miskell but not included in the quantum of indigenous wetland vegetation. The full extent of the native *Juncus* is likely greater than the 10,000 ha mapped here. The site is an induced wetland dominated by an indigenous wetland rush, and therefore likely met the Waikato Regional Policy Statement significance criteria.

WAIKATO REGIONAL COUNCIL

S42A Report

Appendix 5

Technical Assessment of Air Discharges

Memo

File No: 22 02 09

Date: 9 August 2022 (updated 4 November 2022)

To: Emma Cowan, Resource Officer, Resource Use Directorate

From: Jonathan Caldwell, Senior Scientist, Science, Policy & Information Directorate

Subject: **Technical Assessment – Air Discharges - Gleeson’s Managed Fill**

I have been asked to undertake a technical assessment of the air discharges associated with the application document and supporting AEEs and appendices for "APP144475 - RC Appln - Discharge Permit, Land Use & Water Activities - 300 Riverview Rd, Huntly" for a proposed managed fill activity.

In preparing my assessment I have referred to the following information:

- APP144475 - RC Appln - Discharge Permit, Land Use & Water Activities - 300 Riverview Rd, Huntly <https://discover.wairc.govt.nz/otcs/llisapi.dll/Overview/23785826>
- AEE summary for all activities, 4 May 2022 AEE Rev02 <https://discover.wairc.govt.nz/otcs/llisapi.dll/link/23893165>
- Air Quality AEE Nov 2019 (<https://discover.wairc.govt.nz/otcs/llisapi.dll/link/24457831>)
- Managed Fill AEE and Waste Acceptance Criteria 13 July 2022 Rev6.docx (<https://discover.wairc.govt.nz/otcs/llisapi.dll/link/24457239>)
- Site Fill Management Plan 13 July 2022 Rev8.docx (<https://discover.wairc.govt.nz/otcs/llisapi.dll/link/24457573>)
- Asbestos Fill Management Plan PDP Aug 2020.pdf (<https://discover.wairc.govt.nz/otcs/llisapi.dll/link/24492966>)
- Appen 6.11 Asbestos Air Monitoring Plan.pdf (<https://discover.wairc.govt.nz/otcs/llisapi.dll/link/24491764>)
- Dust Management Plan (located on page 434 of the main application document)
- Draft Conditions as proffered with application.docx (<https://discover.wairc.govt.nz/otcs/llisapi.dll/link/24458432>)
- Air Quality s92 response WRC Jan 2020 (<https://discover.wairc.govt.nz/otcs/llisapi.dll/link/24458226>)

In addition to this I undertook a site visit on 5 December 2019.

PDP provided an AEE of air discharges associated with the managed fill activity in November 2019 which was included in Appendix 11 of the Bundled Resource Consent application lodged in May 2022. The original AEE included an assessment of discharges to air associated with managed fill activities in Fill areas 2,3 and 4 as well as clean fill and overburden activities in Fill area 5 which is no longer part of this consent application.

PDP has identified and assessed both dust and combustion related discharges to air associated with the managed fill activities.

Dust discharges

Dust discharges are associated with:

- vehicle movements on access roads and unsealed haul roads within the site;
- Stripping of topsoil for establishment of fill areas;
- Placement of cleanfill, overburden and managed fill with asbestos containing material (ACM);
- Rehabilitation of fill areas with topsoil; and
- Fugitive emissions from exposed surfaces

Dust discharges include both nuisance dust particles larger than 10 microns in diameter and fine particles that are smaller than 10 microns in diameter (typically referred to as PM₁₀ and PM_{2.5}) which can pose a risk to health. I agree with PDP that it will be the nuisance dust particles that are likely to dominate the discharges.

PDP assessed the adverse effects from dust discharges by consideration of the FIDOL factors which considers the sensitivity and location together with the likelihood of the activities to generate dust and the frequency of winds with increased potential to result in offsite dust. Refer to Figure 1 for locations of sensitive receptors with distances ranging from 400 to 930 metres away.



Figure 1. Nearest residences location map (note Fill Area 5 in magenta is not part of this application).

PDP considers that the properties immediately to the east and northeast of the site are most at risk due to the higher frequency of strong winds occurring from the west and south-southwest, whereas

properties in other directions from the site will be at a significantly lower risk of experiencing windblown dust. However, through a s92 request I made in December 2019 for assessment against a more local meteorological station located at Frost Rd (9 km north of the quarry), it was agreed by PDP that this Frost Rd met station would be more applicable with a prevailing wind direction along the north-south axis that is formed from the valley terrain in this location (refer to Figure 2). However, more recent met data from the Frost Rd site now indicates to me that the prevailing wind in the last two years has been more from the southwest with a smaller component from the southeast which is more consistent with the original assessment by PDP based on the Ruakura and Whatawhata Windroses.

I therefore agree with PDP's original assessment that it is properties to the east and northeast of the site that would be more at risk. And as noted by PDP, these residences are over 400 metres distant from the proposed dust-generating activities at the quarry, and so are unlikely to be significantly affected by dust, even when downwind of the activities. Specifically, the dust management plan prepared by PDP in February 2020 states that it is expected that dust from activities at the site will settle within around 100 metres from the point of discharge.

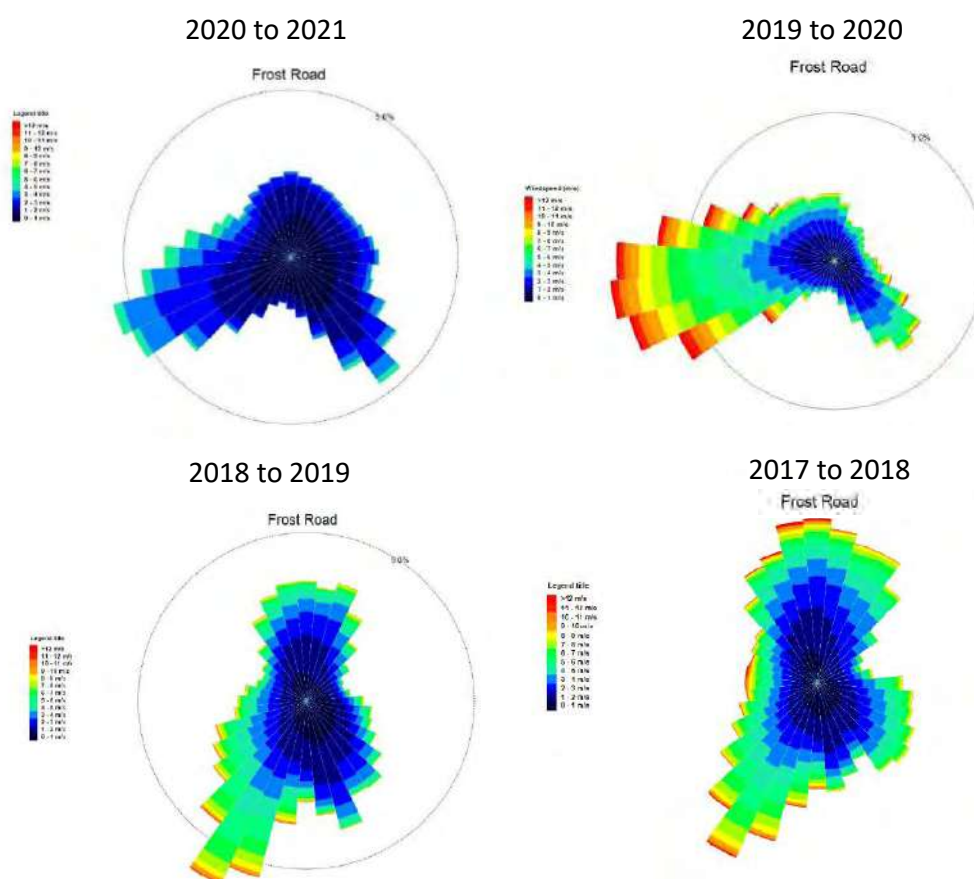


Figure 2. Frost Road Windroses.

In my original request for further information in December 2019 I raised the query that managed fill could contain quite elevated concentrations of contaminants that could be harmful to human health e.g. arsenic at up to 100 mg/kg and lead at up to 1000 mg/kg. While it is acknowledged that average

concentrations over the longer term are going to be a lot lower than this, there is potential for elevated concentrations in dust in the short term after a specific load has been deposited. This section of the FIDOL assessment also refers to asbestos being enclosed in impermeable packaging material which will prevent emissions of ACM to air. However, this doesn't account for disposal of soils containing asbestos fibres which typically won't be wrapped, although will be covered during transport. So there is potential for discharges of asbestos fibres from unwrapped soils as they are being tipped if not managed properly.

Therefore, there is in my opinion, with regards to FIDOL factors, potential for offensiveness from dust discharges from soils with elevated levels of metals and soils containing asbestos fibres if poorly managed, but that this factor should be able to be mitigated through good dust control consistent with Industry best practice as set out in section 7 of the AEE for air discharges and adherence to the proposed controls identified in the Asbestos Management Plan.

PDP agreed but reiterated that average concentrations will typically be significantly lower than the acceptance criteria and that ACM fill has the potential to result in dust if poorly managed but that these discharges can be mitigated by adhering to the MfE's Good Practice Guide for Dust Management measures and adherence to the proposed controls identified in the Asbestos Fill Management Plan and Dust Management Plan.

I agree that these potential effects can be controlled sufficiently to avoid adverse effects beyond the boundary by adherence to the controls and practices recommended in the Dust Management Plan (consistent with the MfE GPG) and the Asbestos Fill Management Plan which I discuss in more detail below under Recommended Controls and Monitoring for Dust and Recommended Controls for Asbestos Management and Monitoring.

In addition to this, it's important to point out that asbestos only poses a risk to human health when free fibres become airborne above the trace level threshold of 0.01 fibres/ml. There are also specific regulations and controls for managing health and safety for workers on site in association with exposure to airborne asbestos fibres under the Health and Safety at Work Act 2015, the Health and Safety at Work (Asbestos) Regulations 2016 and the Approved Code of Practice: Management and Removal of Asbestos (ACOP, November 2016).

The main requirement under these regulations is that a PCBU (person conducting a business or undertaking) with management or control of a workplace needs to ensure asbestos is identified at a workplace including its location and that the PCBU prepares an asbestos management plan which identifies how exposure risks will be managed and may also include if required, air monitoring procedures. In addition to this, a PCBU must ensure that workers on site who may be exposed to asbestos have appropriate training and supervision.

Waikato Regional Council's statutory responsibility under the RMA is to ensure that air discharges beyond the boundary of the site are appropriately controlled such that there is no unacceptable risk to the environment (including human health) beyond that boundary. While WRC has no statutory responsibility through an RMA process for enforcing the Asbestos regulations, adherence to these regulations for protecting workers within the site boundary, will mean that sensitive receptors beyond the boundary of the site will be appropriately protected. In summary, if the occupational health and

safety matters are properly addressed with regards management of asbestos, then the environmental matters that fall under the RMA will be properly addressed.

Subsequent to my initial preparation of this Technical Assessment, I have now become aware of concerns raised through submissions on the application, specifically with regards to erionite and tremolite which I will address separately as follows.

Erionite fibres are naturally occurring minerals with similar chemical composition to asbestos but have been known overseas (particularly Turkey) to pose a more significant risk to human health from breathing airborne fibres.

Concern about erionite was raised previously in 2020 regarding a managed fill's acceptance of soil from Watercare's Central Interceptor pipe work that crossed a large part of Auckland where the presence of erionite may occur in association with zeolite minerals in bedrock, and the concern raised about potential contamination with erionite fibres during excavation and disposal. At the time I had a meeting with a landfill specialist and a geologist from Auckland Council who had both been involved with the Central Interceptor project. The geologist, Ross Roberts, knows the geology and doesn't consider it likely that soils would be contaminated with erionite. He says it is very speculative and the only way of analysing samples is to have them cryogenically prepared and sent to the US for Transmission Electron Microscopy. He has also been involved with some conversations had with Worksafe over this concern. An employee of Worksafe also considered it very speculative and agreed that there didn't need to be any additional controls in place for protecting workers who are excavating the soils. I also discussed it at the time with Dave Dangerfield and Simon Hunt from EHS, who are experts in risk management of asbestos, and their view was that it is all very speculative that the soil from the interceptor project would be contaminated with erionite fibres and that nobody seems to have provided any evidence of it.

In addition to this, I would also note that there is currently no health risk guideline that has been developed for airborne erionite fibres. So even if it was feasible to require air monitoring of erionite at the Gleeson Managed Fill site, the results of that monitoring would be difficult to interpret with regards to the risk it posed. There are also currently no standardised methods for erionite analysis. Samples would have to be potentially sent to the USA for Transmission Electron Microscopy, a very expensive and research-based analysis method. The turn-around time for getting results back from this analysis would likely be in the order of months so any monitoring would be extremely retrospective.

It is also important to point out that a significant volume of fill likely to be coming to the Gleeson site for disposal will be from surface soils from residential developments or shallow soil excavations associated with commercial developments which are very unlikely to be within the mineralised areas in deep bedrock that may potentially contain erionite where zeolite mineralisation occurs. Large infrastructure projects that are more likely to cut through those mineralised areas are more likely to be part of large-scale tunnelling projects. Tunnelling Boring Machine (TBM) spoil is more likely to be of concern in my view due to the presence of organic contaminants associated with drilling additives.

In my opinion, there is insufficient evidence that erionite is likely to be an air borne contaminant of concern and it is not feasible to require the applicant to monitor for it. Disposal of erionite in a managed fill once covered over would not pose any more risk to the environment compared to asbestos contaminated soils but there is, however, uncertainty around the risk to onsite workers during the disposal. However, I am recommending that Tunnelling Boring Machine spoil should not be

accepted for disposal at this managed fill site (refer to my Technical Assessment for discharges to land and water WRC Doc# 24065024) on the basis of risk from tunnelling drilling additives that typically can have high eco-toxicity. On the basis that TBM spoil is excluded, I also do not anticipate any concern over erionite contamination of soils that are disposed of at the site.

With regards to one submitter's concern about tremolite, there is always the possibility of naturally occurring forms of asbestos such as tremolite being present in soils from the Auckland region. Despite this, there is a much greater possibility of asbestos being present in soils arising from asbestos containing building materials that have been either buried, damaged or have disintegrated over the years and shed fibres in to surrounding soils. Residential properties are likely to be the most significant source of this asbestos contamination. I therefore consider the potential risk from naturally occurring asbestos in soils to be inconsequential compared to residential and commercial sources. I would also note that any cleanfill operation is just as likely to receive soils potentially containing natural sources of asbestos and yet they would have less specific controls or management procedures in place to deal with that risk compared with a managed fill.

I also do not consider it necessary for separate monitoring of airborne tremolite as opposed to airborne asbestos fibre monitoring. Worksafe's requirements around monitoring of airborne asbestos fibres does not require individual identification of each of the different species of asbestos fibre. I am also not aware of a specific health risk limit for tremolite that could be used as a trigger limit compared to asbestos fibres in general.

With regards to concerns raised by many submitters regarding dust in general, I note that many of these concerns relate to dust generated from truck movements along Riverview Road and from some of the truck laybys near to and adjacent to the site entrance. It is evident that the source of this dust is from the trucks and their movements and does indicate that the truck loads are not necessarily being properly covered and or trucks are not using the onsite truck wash and are tracking soil offsite.

In addition to this, some of the submitters have provided photos of fugitive dust clouds over the quarry area and while the photos do not necessarily indicate that the dust is travelling beyond the site boundary, it is indicative of poor onsite dust control for the current quarry operation. In addition to this some submitters have indicated concerns about dust deposition on the windows of their houses and vehicles parked facing the quarry direction. This does indicate to me that at times fugitive dust is discharging beyond the site although it is unclear whether this is dust generated from the quarry itself or resuspended dust from Riverview Road as trucks are driving to and from the quarry, or a combination of the two sources.

While there doesn't appear to be many recorded complaints around dust that have been received by WRC over the last few years, the information provided by the submitters does indicate that a higher level of dust control is required. I am aware that the site are currently upgrading the site entrance and truck wash and will be undertaking a comprehensive clean-up and upgrade of the road which should help reduce impacts on neighbours.

As discussed earlier in my assessment, the proposed mitigation and monitoring methods for dust control for the managed fill operation are in my opinion consistent with best practice. I agree with PDP that the contribution of dust from the proposed managed fill activities is likely to be low compared to the existing quarry activities. However, it will be necessary that a proactive rather than a reactive

approach is taken to dust control and that these controls and procedures are adhered to and complied with as well as dust controls and procedures relating to the existing quarry operation to ensure a no more than minor level of effect beyond the boundary.

In summary I agree with PDP's conclusion that the discharges of dust from the activities associated with the proposed site is not expected to result in a significant dust nuisance or health effect relative to applicable air quality guidelines and standards provided the proposed mitigation and monitoring methods are implemented to control dust to an acceptable level as well as adherence to the proposed methods for managing and monitoring asbestos disposal. In my opinion, effects will be no more than minor from discharges associated with these sources subject to adherence to the controls and monitoring discussed below.

Odour

Several submitters have raised concern regarding the potential for odour associated with the managed fill operation. It appears some of this concern relates to potential odour arising from acceptance of marine sediments. I have made separate comment on this issue under my Technical Assessment for discharges to land and water (WRC Doc# 24065024). While I consider that the odour risk could be properly managed, from this source, my recommendation is that this material should not be accepted at the site due to uncertainties around contaminants that can typically accumulate in marine sediments.

With regards to concern for odour from other sources, it is important to note that this managed fill operation will not be accepting putrescible materials such as food and animal waste or green waste that can generate odorous gases on breakdown.

In summary, I do not consider odour as a discharge of concern based on the proposed activity. However, I am aware that there have been situations at other sites where non-compliant fill has been received which has resulted in odour issues. I would therefore recommend that a condition of consent is included that provides specific restrictions around this as follow:

The discharge shall not result in odour that is objectionable to the extent that it causes an adverse effect at or beyond the boundary of the subject property.

Combustion discharges

Combustion source emissions are associated with heavy equipment used in excavation and vehicles used to transport materials to and from the site which include sulphur dioxide (SO₂), nitrogen oxides (NO_x), carbon monoxide (CO) and fine particulate matter (PM₁₀ & PM_{2.5}). PDP has indicated that the overall number of vehicle movements at the quarry is not proposed to change as a result of the acceptance of fill material at the site due to the estimation that around 25% of trucks delivering aggregate will be bringing fill back from the project sites to deposit in the Fill areas.

Nitrogen oxides, specifically nitrogen dioxide (NO₂) is the main contaminant of concern from vehicle emissions. The closest residential receptor is 400 metres away. The University of Minnesota recommends a 200 metre setback for residential areas, schools, and day care facilities from a major road¹. Modelling work by Beca on NO_x concentrations at some busy intersections in Auckland

¹ University of Minnesota, 2007. Design for Health, University of Minnesota, August 2007. Key Questions: Air Quality, Version 2.0.

predicted that the highest concentrations are within 30 to 40 metres from an intersection and reduce significantly to acceptable levels after 50 metres². In addition to this, an assessment of effects by Beca in 2018 determined that emissions from surface vehicles (NO₂, CO, and PM₁₀), associated with Project Martha operations at Martha open mine pit in Waihi will not result in exceedances of ambient air quality guidelines outside the mine boundary³.

Based on this assessment of a similar activity and recommended setbacks, I consider that the discharges to air associated with combustion of fuel from operation of vehicles and machinery on site will not result in any exceedances of relevant air quality standards and that effects beyond the boundary will be no more than minor.

Existing ambient air quality in vicinity of site

In assessing the level of effects, PDP has referred to the background ambient air quality monitoring undertaken by Genesis Energy as part of the requirements of operating the Huntly Power Station. Two stations are operated within Huntly township and two stations in the rural areas to the northeast and northwest of the proposed managed fill site with the closest station located 3.3 km northeast in Huntly township. The stations monitor PM₁₀, SO₂ and NO₂ and meteorology with no exceedances of the relevant air quality standards over the last 10 years except for one PM₁₀ exceedance at one of the rural stations 8 km to the northeast in 2013 and one exceedance at each of the four stations in December 2019 which were linked to the 2019 Australian bush fires⁴. In summary, the Huntly airshed and the rest of the region airshed (rural area surrounding the Huntly airshed) is in compliance with the National Environmental Standards for Air Quality. In my opinion I do not consider it likely that the proposed discharges to air associated with the managed fill operation will contribute to exceedances of air quality standards within the Huntly Airshed or the Rest of the Region Airshed.

Recommended controls and monitoring for dust

PDP recommends the following mitigation and monitoring:

- Preparation of a dust management plan;
- Restricting vehicle speeds at the site to 20 kph or less;
- Avoiding earthworks activities during periods of strong winds (>10 m/s as a 10 minute average)
- Inspection of loads to ensure they are not dusty;
- Covering and/or dampening of dusty loads;
- Dampening or covering of dusty loads during placement in the Fill Areas;
- Rehabilitation of completed sections of the Fill Areas as soon as practical to minimise the potential for dust; and
- Use of wheel wash stations at the site exit to minimise trackout of dust;
- Visual monitoring of dust which may include daily site inspections that are recorded and made available as a log to WRC when asked.
- Real time monitoring of wind speed and direction to assist with decision making for applying the appropriate level of controls and to assist with a trigger for increasing the level of dust control and wind speeds above 10 m/s as a potential threshold for ceasing work. Wind speed may be obtained from local weather forecasts for the purpose of scheduling the activities.

² Needham C, Noonan M, 2014. At the crossroads for modelling. CASANZ Transport Workshop, Auckland, December 2014.

³ Project Martha – Assessment of Environmental Effects of Discharges to Air. Report prepared by Beca, 13 March 2018 (WRC Doc# 12546836).

⁴ Ambient air quality monitoring report for the Waikato Region – 1998 to 2020, Waikato Regional Council Technical Report 21/33 (publication in progress).

A dust management plan has been provided on page 434 of the main application document. The plan was prepared by PDP on February 2020. This plan details a number of specific controls and procedures in addition to almost all of the original recommendations from the AEE apart from the cessation of earthworks during strong winds and onsite meteorology monitoring.

I agree with PDP's recommendations and consider that the Dust Management Plan is appropriately comprehensive but recommend that the additional recommendations on cessation of earthworks during strong winds and onsite meteorology monitoring is included.

Through a s92 request in December 2019, I asked PDP to provide some further discussion on the proposed mitigation of avoiding earthworks activities during periods of strong winds (>10 m/s as a 10 minute average). For example, would it be necessary to cease works if the wind is blowing away from sensitive receptors or if the wind is blowing towards sensitive receptors but the earthworks are being undertaken on the western boundary of Fill sites 2 or 3 where separation distances might be in the region of 800 to 1000 metres? Or should there be a lower wind speed alert if asbestos waste or soils with asbestos fibres is being deposited?

Installation of an onsite wind monitoring sensor would also provide a more localised and accurate determination of wind conditions on site compared with reliance on wind data obtained from an offsite meteorological station.

PDP's response:

- We agree that a limitation on the operation ceasing when winds exceed 10 m/s could be applied so that earthworks cease when strong winds are from the west and south-southwest, and that this restriction also be limited to Fill Areas 4 and 5 as being nearest the sensitive receptors to the east and north-northeast. Application of controls within these parameters will provide sufficient mitigation of the potential effects.
- The separation distance of the dust-generating activities proposed at the site is sufficient that significant offsite effects are unlikely during periods of winds less than 10 m/s for all soils and associated contaminants, especially given the other proposed mitigations.
- We agree that installation of an on-site meteorological station, with capability for issuing text alerts at higher wind speeds, is good practice for managing the effects of wind-blown dust.

On this basis, I recommend a requirement for cessation of earthworks when winds from the west and south-southwest exceeds a windspeed of 10 m/s. This trigger for cessation should apply to Fill areas 3 and 4 but would not be necessary for Fill area 2. In addition to this, I recommend the following requirements for meteorological monitoring:

- The consent holder shall operate and maintain a meteorological station on the site to measure and record the air temperature, wind direction and wind velocity on a continuous basis (at no less than 10 minute intervals).
- A recommendation on the location of the meteorological station shall be made by a suitably qualified and experienced practitioner to ensure that it is positioned in a suitably representative location with respect to the managed fill operation. The finalised location shall be approved by Waikato Regional Council.
- A suitable anemometer or equivalent measurement device capable of measuring wind speeds at a resolution of no greater than 0.1 m/s and capable of measuring wind direction at a

minimum wind speed of no greater than 0.1 m/s, should be referenced to true north and located at least 6 metres above ground and where practicable, free of influence from trees and other buildings or structures.

- The meteorological data shall be retained for the duration of the resource consent and data in excel or csv file format provided for any period to Waikato Regional Council within 48 hours of a request.
- The anemometer shall be calibrated annually, with the documentation of the calibration retained and appended to the annual report and also provided within one week of a request from the Waikato Regional Council.

Recommended controls and monitoring for asbestos

Controls and monitoring for asbestos are provided in a separate Asbestos Management Fill Plan (Aug 2020) and an Asbestos Air Monitoring Plan (13 July 2022), both prepared by PDP.

The management plan addresses procedures and controls associated with the acceptance of asbestos as Asbestos Containing Material (ACM) building waste, and asbestos-in-soil including from “Class A” asbestos removal activities within Fill Areas 2, 3 and 4 (noting that Fill Area 1 which is referred to in the plan is not included as part of this consent application). The plan has been prepared to guide a PCBU in their duty of compliance with the Asbestos Regulations and anticipated conditions of the proposed air discharge resource consent during the acceptance and disposal of these asbestos wastes at the site.

Asbestos/ACM waste and asbestos-in-soil imported to the site is required to be kept moist and encapsulated/covered during transport in accordance with the requirements of the ACOP and WorkSafe which will be checked and enforced at the weighbridge against the pre-approval requirements prior to acceptance.

Ongoing management requirements include:

- Record keeping of type, volume and location within the fill areas;
- Dust suppression and daily cover;
- An asbestos-specific wheel and truck wash facility separate from the standard wheel washes required upon entry and exit;
- Worker training, inductions and health monitoring; and
- Air monitoring and regular reporting requirements and any notification of these results to neighbouring residents/site users (as required).

The principal aim is to eliminate/minimise as far as practicable the potential for airborne asbestos fibres to exceed “trace level” (0.01 fibres/ml of air) either at the boundary of the operational asbestos work zone or within the breathing zone of any worker not wearing PPE/RPE or a vehicle fitted with HEPA filtration.

Dust suppression using sprinklers/mist cannons etc. will be undertaken constantly in operational asbestos zones where asbestos/ACM waste and asbestos-in-soil is actively being disposed or disturbed.

Deposited waste will be capped with at least 0.2 metres of non-asbestos fill material within a maximum of two hours after placement of the asbestos related material.

Asbestos associated waste will only be received from pre-approved contractors with pre-approved contamination investigation and/or a demolition/refurbishment survey for the source site. Records of source site, technical reports, transport and disposal locations will be maintained within a tracking database.

Class A/B building related materials will need to be double wrapped in 200 um polythene and Class A/B soils will need to be wrapped in 200 um polythene with asbestos waste and soils classified as asbestos related works and unlicensed asbestos works will not be required to be wrapped but all loads will be required to be covered with truck/trailer/skip cover.

These cover requirements proposed by PDP are in my opinion consistent with the Approved Code of Practice: Management and Removal of Asbestos (ACOP; November 2016), the New Zealand Guidelines for Assessing and Managing Asbestos in Soil (BRANZ, 2017) and the Technical Guidelines for Disposal to Land, WasteMINZ, August 2018.

The Asbestos management plan provides some summary details of the air monitoring which is also detailed in a separate Asbestos Air Monitoring Plan as well as procedures for dealing with emergency or urgent works involving asbestos and incident reporting and complaints register.

In my opinion the proposed controls and procedures detailed in the Asbestos Management Plan are appropriate for ensuring that effects will be no more than minor subject to adherence to those controls and procedures.

PDP's Asbestos Air Monitoring Plan provides details of monitoring locations, contingency and/or emergency response actions, sampling and analysis methodologies and reporting details. The scope of this plan is limited to the extent of Fill Areas 2, 3 and 4.

The plan details the frequency and locations including monitoring at the fill area boundary (4x air monitors per day with 1-2 downwind of asbestos zone, personnel air monitoring in the cab of at least one machine operating within the nearest vicinity of an operational asbestos zone, a minimum of 1-2 air monitors at or near the property boundaries closest to the neighbouring residential sites (i.e. north and east of the site). There will also be an optional/contingency monitor at the site weighbridge and adjacent to any simultaneous work occurring within the wider fill area. In an emergency situation there will also be an allowance for additional monitoring locations.

Air monitoring sampling to be undertaken as follows:

- Over 10 days within first 3 months of filling with a minimum of two monitoring events coinciding with Class A material disposal wherever possible.
- Favourable results (i.e. <0.01 fibres/mL) and subject to WDC/WRC approval will allow this air monitoring frequency to be reduced to monitoring on a quarterly basis (when asbestos/ACM waste and /or asbestos in soils filling is occurring) for the remainder of the first year of operation.
- If exceeding 0.01 fibres/mL then contingency/emergency actions will be required as specified in Table 3 to ensure that further investigation and monitoring is undertaken and if exceeding 0.02 fibres/mL then work on site is stopped and Worksafe, WDC and WRC are notified.

In my opinion, the proposed monitoring plan provides a comprehensive and flexible monitoring programme that will take in to account prevailing wind directions as well as exposure risk to onsite workers and offsite receptors and should provide WRC with the confidence that asbestos disposal is being controlled appropriately. I would however, recommend that as per my recommendation for managing dust discharges, it will be important to install and maintain an onsite meteorological station to also improve the ability for the consent holder to manage and monitor asbestos disposal.

Conclusion

PDP has identified and assessed both dust and combustion related discharges to air associated with the managed fill activities, including vehicle movements, stripping of topsoil for establishing fill areas, placement of fill including asbestos containing materials, rehabilitation of fill areas with topsoil and fugitive emissions from exposed surfaces. I do not anticipate any risk of odour effects as long as there is compliance with acceptance of the specified types of fill that can be received at the site.

In summary I agree with PDP's conclusion that the discharges of dust from the activities associated with the proposed operation is not expected to result in a significant dust nuisance or health effect relative to applicable air quality guidelines and standards provided the proposed mitigation and monitoring methods are implemented to control dust to an acceptable level as well as adherence to the proposed methods for managing and monitoring asbestos disposal. In my opinion, effects will be no more than minor from discharges associated with these sources but this is subject to a proactive adherence to the controls, monitoring and management procedures that have been proposed and the additional recommendations that I have made.

WAIKATO REGIONAL COUNCIL

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Appendix 6

Groundwater Technical Assessment

10 June 2022

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Waikato Regional Council
Private Bag 3038
Waikato Mail Centre
Hamilton 3204

Attention: Joshua Evans

Dear Joshua

Gleeson Managed Fill Consent Application Review of Groundwater Effects

Thank you for the opportunity to complete this technical review of groundwater effects in relation to the Gleeson Managed Fill operation for Waikato Regional Council. The following pages contain my review and include some further questions/clarifications I recommend WRC submit to the applicant.

Should you require any further information please do not hesitate to contact me.

Yours sincerely



TIM BAKER
Principal Consultant - Water Resources

Overview of Proposal and Activities

The Huntly Quarry (operated by Gleeson Quarries) is a long-established hard rock quarry located at 300 Riverview Road, Rotorawo. The quarry is immediately adjacent to the Waikato River, approximately 3 km south of Huntly town centre.

As the quarry expands, overburden must be removed to expose the hard rock. The existing overburden site has reached capacity and the Gleeson Group (comprising Gleeson & Cox Ltd, Gleeson Managed Fill Ltd and Gleeson Quarries Huntly Ltd) are seeking resource consents to establish new overburden and managed fill sites within three gullies (identified as fill areas (FA) 2, 3 and 4) on property legally described as Pt Lots 9 and 10 DP 1278 and Lot 1 DP 25272 comprised in Certificate of Title SA922/109 (noting that a fourth fill site, 5, has already been consented, WRC 141137).

The managed fill includes the importation and deposition of both clean fill (including overburden material from the adjacent Huntly Quarry) and managed fill. Refer to the appended site layout plan for reference). The total fill volume is estimated to be approximately 2,000,000 m³ comprising Fill Area 2 (717,000 m³), Fill Area 3 (478,500 m³), and Fill Area 4 (800,000 m³).

Managed fill acceptance criteria (Waste Acceptance Criteria, WAC) have been proposed by EHS Support (EHS, 2022). The managed fill may contain asbestos. WAC for managed fills are typically levels aimed at controlling adverse effects¹ acknowledging that concentrations of contaminants in the material be at above concentrations found in soil and groundwater in the environment around the site. This means that there is a potential for effects, and therefore requires assessment and monitoring.

This technical memo provides a review of the assessment of effects of the proposed activities in relation to groundwater and groundwater associated features. Please note that the suitability and derivation of WAC have not been reviewed as part of this assessment.

Key Documents Reviewed

The following documents were reviewed for the development of the technical memo:

- Assessment of Effects. Proposed Overburden & Managed Fill Activity. Riverview Road Huntly. Prepared by Paua Planning, April 2022.
- Assessment of Environmental Effects and Waste Acceptance Criteria. Prepared for Gleeson Managed Fill by EHS Support, April 2022.
- Soil Sampling Assessment – Sub Soils Fill Area 3 (FA3). Letter prepared by EHS Support to Kate Marsden, 6 May 2021.
- Huntly Quarry Disposal Sites – Geotechnical Assessment. Revision C. Report prepared by GAIA Engineers, 5 November 2019.

Geological Setting

The regional and site geology is described in the Assessment of Effects and Waste Acceptance Criteria Reports produced by EHS Support (EHS, 2022). The geology can be summarised as:

- The regional geology consists of Greywacke (Hakarimata Formation, Newcastle Group and Triassic aged)

¹ Technical Guidelines for Disposal to Land Waste Management Institute New Zealand (WasteMINZ) August 2018

- The quarry lies on the northwest limb of a northeast-trending synform (downward fold). This formation is an indurated siltstone, with fossiliferous sandstone higher up in the formation
- Unconformably overlying this unit are members of the Tertiary aged Te Kuiti Group (laminated medium-fine grained sandstones, siltstones and thin coal beds), including erosional remnants of the Waikato Coal measures
- Recent Taupo Pumice ash overlies some of the Waikato Coal measures, mostly on ridge tops. Much has been removed as part of quarry stripping investigations (i.e. overburden)
- The Newcastle Group Greywacke (i.e., the quarried material) is highly weathered at the surface and less weathered with increasing depth, particularly in stream banks and beds.

Hydrogeological Setting

Limited baseline hydrogeological data are presented by the Applicant, however the general conceptualisation presented by both EHS and GAIA is that there are two groundwater systems beneath the site:

- A deeper groundwater system within the greywacke. Flow direction in this system is regionally toward the Waikato River however it is influenced beneath the site by the dewatering of the quarry.
- Shallow perched groundwater associated with material of lower permeability near surface such as the weathered Waikato Coal Measures, recent colluvium and imported fill. GAIA report the potential for presence of groundwater seeps and springs associated with these perched systems.

EHS report that the deep groundwater levels within the main quarry pit are approximately 19 m RL and approximately 12 m RL adjacent to the Waikato River. Groundwater seepage at the base of the main quarry is pumped into and flows eastward along an unnamed stream and stormwater pond before entering the Waikato River. This pumping has the effect of dewatering the area surrounding the quarry, so it is assumed by SLR that the 19 m RL measurement is of a lowered groundwater table. The source of these groundwater level measurements is listed as being from PDP Consultants and is unpublished data. I recommend this is verified.

For the shallow/perched system, the gullies in which FA2, FA3 and FA4 are proposed have ground surface elevations ranging from 47 to 66 m RL, indicating a separation of the deeper system from the shallow and/or perched system. Two boreholes (BH301, BH302) were drilled at location FA3 for geotechnical purposes to depths of 24 and 25 m respectively, however no piezometers were installed, and water levels were not recorded.

The GAIA geotechnical report provides site some specific information on the shallow systems:

- FA2 is located at the end of a gully that is in the form of a natural amphitheatre. Several small gullies converge at the base of the amphitheatre resulting in an area of ponded water. Just downstream of this pond, a dam has been created. GAIA note that the site was visited during a dry period yet there was a 'moderate' amount of water flowing over the dam, indicating the potential for the ponds to be spring fed.

- FA3 is a gully that was reportedly similar in nature for FA2 (GAIA, 2019) but has been partially filled with mine overburden from nearby historic mining activities. Overburden placed as fill within the gully has created a large flat area that is present within the fill area and extends into the neighbouring property to the north. The 2019 AEE² notes that '*Fill Area 3 was observed to be to be hydraulically conductive with numerous fast seepages observed in the sidewalls of the opened pits. High groundwater levels in the near surface could negatively impact the stability of new material placed above it*'. Deep sub-soil drainage is proposed at this site to allow for the reduction of pore pressure and dissipation of perched groundwater from the mining fill when under load (of the managed fill).
- FA4 is very similar in nature to FA2 with an amphitheatre shaped basin with surface ponding and a farm dam. It is unclear whether the dam is filled from surface run-off or spring fed.

Groundwater quality at the site (including the quarry and proposed fill areas) has not been assessed. This is because apart from seeps from faces within the quarry, groundwater has not been reported in any boreholes (EHS, 2022). It does not appear that any samples from the seeps/springs identified by GAIA have been sampled. Sampling from these seeps/springs would provide a useful baseline.

A summary of groundwater quality from bores surrounding the site is presented in the AEE. While these data are not representative of the site, they assist with providing an indication of localised groundwater quality.

Groundwater Receptors

The Applicant has carried out a bore search of the WRC borehole database and reports that there are no bores within the site or between the managed fill and the Waikato River. This is assumed to be the Applicant's area of focus due to the conclusion that groundwater flow was east toward the Waikato River.

However, I have checked the WRC online GIS³ and found 2 bores in proximate distance to the site:

- Bore 72_10634 is located within the quarry (so just south of the proposed Fill areas) and was drilled in 2019. It is 71.5 m deep. No water level was reported on the database.
- Bore 69_1443 is approximately 650 m north of the property boundary. It is 21 m deep with no other details recorded.

A search of the Waikato Maps Resource Consents maps for water permits indicates that the only consented water takes within 1 km of the site are those associated with the quarry.

Whilst there appears to be little to no use of the groundwater close to the site, the presence of seeps and springs indicates the potential for groundwater dependent ecosystems to be present within the proposed Fill areas. I have not assessed the ecological value of these systems, or whether there are downgradient features such as wetlands that are dependent on flow from the seeps and springs. This needs to be covered by the ecological review.

Review of Assessment of Effects

I consider that there are two main aspects of this consent application that have the potential to affect groundwater beneath the site. These are:

² GLEESON QUARRIES HUNTLY LTD. PROPOSED OVERBURDEN & MANAGED FILL DISPOSAL AREAS. Bundled application to Waikato Regional Council for regional Resource Consents associated with undertaking the deposition of overburden and managed fill within identified gullies adjacent to the Gleeson Huntly Quarry, Riverview Road Huntly. Report date: 15 November 2019. Report Version: Rev01

³ [Groundwater \(waikatoregion.govt.nz\)](http://groundwater.waikatoregion.govt.nz)

- The creation of subsoil drainage in the ground beneath each of the proposed fill area to ensure a stable platform for the managed fill material. This drainage may lead to the diversion of shallow perched groundwater and/or loss of natural spring flows.
- Seepage of contaminants from the managed fills and mine waste into groundwater (nothing the FAs are not lined) at concentrations that may affect surface water receptors.

With regards to the subsoil drainage, the Application does not appear to assess what, if any, the effect that the placement of fill in the headwaters of each valley will have on stream flows and/or the overall water balance of each catchment (noting the observations of perennial flow into the dams at FA2 and FA4). I recommend that further information is provided on this aspect. Additionally, the presence of springs appears to be uncertain and should be further assessed.

Additionally, if there are perennial spring flows, there is a potential that the springs/dams are providing habitat for freshwater species. I recommend the Council ecologist address this issue if it has not already been addressed.

The potential effects of seepage from the base of the fill area on groundwater and ultimately the Waikato River has been assessed by EHS (2022) using the Risk Based Corrective Action (RBCA) model. This is a fate and transport model that predicts the concentration of a contaminant of concern on an identified receptor. I have some questions largely focused about the general conceptualisation adopted for the modelling. The questions are listed below.

Conclusion / Recommendations

I have the following questions/requests/queries, and recommend that they be put to the Applicant to assist the review of groundwater related effects:

Conceptualisation

- Please provide a validation of the hydraulic properties listed in Table 2 of Appendix 10.1 Waste Acceptance Criteria Report. These are referenced as being from an 'unpublished PDP report' and have no supporting information (as fields sheets, monitoring locations etc). An explanation of who collected the data, under what methodology, when and how they were collected is required. As the only data of this type presented, they are critical to the assessment.
- Please provide a conceptual cross section/s of the site that includes interpreted groundwater levels relative to the quarry, the fill areas, and receptors such as streams/wetlands/river.
- Quarry dewatering – is this permanent and what is the radius of influence. If quarrying stops, will groundwater levels increase and would this affect any of the Fill areas? A cross section may be useful in assessing this risk.
- There is no mention of groundwater strike on BH301 and BH302. Is this because no groundwater was encountered, or because it was not recorded?

Effects on shallow groundwater flow

- There is reference to the potential for springs and seeps at least two of the Fill Areas in the GAIA geotechnical report. Has any further information on the presence of springs been obtained?
- Will activities (such as underdrainage) at any of the Fill Areas result in the loss of stream flow downstream from the Fill Areas? Noting the potential for drainage water from FA3 is to be trucked off-site if quality is not suitable for discharge to the streams. If so, has this been quantified (such as via a simple water balance model)?

Modelling

- There is limited documentation on the conceptual setting (geology/hydrogeology) assumptions adopted for the RBCA modelling. The model requires inputs such as groundwater depth and hydraulic conductivity. Please provide further information on the assumptions made to populate the model inputs.
- Is the RBCA assessment representative of the fate and transport of contaminants from all three proposed Fill Areas?
- Does the RBCA model include the mine tailings contaminants present at FA3?
- Is the Waikato River is the most appropriate receptor given that the pathway to the river would be via the regional groundwater system. The general conceptualisation and geotechnical reporting indicates that the most likely pathway would be via shallow groundwater seepage to localised wetlands/streams/springs, then the Waikato River.

Monitoring

- What monitoring of groundwater is proposed?

Checked/ Authorised by: KT



Figure 1: Oblique Image looking North-East at Fill Site 2 Showing Topographic Features



Figure 2: Oblique Image looking South at Fill Site 3 Showing Topographic Features



Figure 3: Oblique Image Looking South at Fill Site 4 Showing Topographic Features

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Appendix 7

Erosion and Sediment Control Plan Review

Memo

File No: 61 76 85A

Date: 30 June 2022

To: Emma Cowan, Sheryl Roa

From: Joshua Evans

Subject: Final Review of Updated Proposed Erosion and Sediment Control Plans for Gleeson Managed Fill Limited Application – Fill Areas 2, 3, and 4 and s92 Response

Dear Emma and Sheryl,

You have requested that I review the draft erosion and sediment control reports (appendix 9) provided by Gleeson Managed Fill Limited for APP144475 lodged on 14th April 2022 to establish and operate a managed fill operation in gullies referred to as fill areas 2, 3, and 4. This memo has been prepared to review the applicants' responses and updated Erosion and sediment Control Plans provided to WRC on 20 June 2022 (WRC DOC# 24160443) and determine whether s92 requests have been addressed appropriately.

I note that my review consisted of a limited focus on the general principles of the draft plans in the scope of whether they have been prepared in alignment to Waikato Regional Council Technical Report No. 2009/02 Erosion and Sediment Control Guidelines for Soil Disturbing Activities, January 2009 (TR2009/02) and identify any specific details of the proposed methodologies that require further clarification.

I have reviewed the two draft erosion and sediment control reports separately recognising there are slightly different methodologies and activities proposed at Fill Area 3 compared to Fill Area 2 and 4 as per below:

Phase 1 Erosion and Sediment Control Plan Fill Area 3 – Site Establishment and Initial Filling

- **3.2.1 Deep Drainage**
 - Clarification on the specific area and volumes that will be disturbed during the process of installing deep drainage and the maximum disturbed area during installation will be required in the final ESCP to determine adequacy of controls during works if the consent is to be granted.

- **3.2.2 SRP**
 - Please refer to comments provided by Dr. Jonathan Caldwell on 9 June 2022 (WRC DOC# 24101537), regarding the clarification as to the installation of the 75m³ tank.
 - In response to Dr. Jonathan Caldwell's comments, the applicant clarified that the installation of the 75m³ was for additional storage if sediment retention pond discharge did not meet the required discharge standard and control of discharge during baseline monitoring.
 - I agree with Dr. Caldwell's comments confirming that he is satisfied with the clarification provided in the response and have no further queries on this matter.

- **3.2.4 Detention Storage and Disposal**

- Although it is recognised that an exceedance of the 50-year ARI rainfall event, I have reservations regarding the practicality of the pumping down of storage during events to increase capacity of the SRP.

- **4 Erosion and Sediment Control Specification**

- I can confirm that controls have design and methodologies are in accordance with TR2009/02.
- Taking into consideration the implementation of staging filling and progressive stabilisation reducing the exposed surfaces flowing into the SRP, adequate treatment for Fill site 3 should be achieved.

Erosion and Sediment Control Plan Fill Area 2 and 4

Overall, it appears that the plan has been prepared in accordance with TR2009/02 and the methodologies proposed are in accordance with best practice. However, I do have the following comments:

Section 3 – Description of Works

- The applicants s92 response stated that wetland treatment cells are no longer proposed or required to achieve the necessary discharge quality. The applicant has also updated the ESCP's to reflect these changes. Overall, I accept that it appears that the proposal will meet outcomes anticipated by WRC TR2009/02 for both Fill Area 2 and 4. I note that the total catchment for Fill Area 4 is 5.21 ha which exceeds the 5-ha catchment limit for Sediment Retention ponds in TR2009/02. I recognise that the Pond has been appropriately sized for the catchment size of 5.21 ha, I consider that further controls such as a wetland treatment cell would be beneficial to ensure appropriate treatment is provided prior to discharge from Fill Area 4.

Conclusion

To summarise, upon my reviewal it appears that the proposed methodologies and practices on principle will be appropriate for the proposed works upon review of the updated Erosion and Sediment Control Plans. I can confirm that all s92 responses relevant to erosion and sediment control aspects of the application have appropriately addressed queries raised by myself.



Joshua Evans
Resource Officer – Land Development
Waikato Regional Council

WAIKATO REGIONAL COUNCIL

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Appendix 8

WRC DRAFT CONDITIONS

RECOMMENDED CONDITIONS APP144475

Gleeson Managed Fill Limited, Fill Sites 2-4

This document sets out the recommended conditions for the following suite of consents.

Activity	Description
APP144475.01.01	Earthworks and vegetation clearance within high risk erosion areas associated with the overburden, cleanfill and managed fill disposal Areas 2, 3 and 4 and ancillary activities.
APP144475.02.01	To discharge overburden to land at Fill Areas 2, 3 and 4
APP144475.03.01	To discharge Cleanfill and Managed Fill to Land at Fill Areas 2, 3 and 4
APP144475.04.01	To discharge stormwater and treated water in association with Fill Areas 2, 3 and 4.
APP144475.05.01	To take and divert groundwater and divert stormwater all in association with Fill Areas 2, 3 and 4
APP144475.06.01	To undertake stream diversions, reclamation of streams and associated bed disturbance in association with filling Areas 2, 3 and 4.
APP144475.07.01	To discharge treated stormwater to land and/or water within 100 metres of a natural wetland

APP144475.01.01**Earthworks and vegetation clearance within high risk erosion areas associated with the overburden, cleanfill and managed fill disposal Areas 2, 3 and 4 and ancillary activities.****CONDITIONS**

1. This consent is subject to compliance with Schedule One – General Conditions.

Winter Works

2. The earthworks authorised by this resource consent shall not be carried out during the winter period 1st May to 30th September inclusive in any year that this consent is current unless authorised by the Waikato Regional Council.
3. The consent holder shall ensure that earthworks and soil disturbance areas (not including Managed Fill disposal areas) are appropriately stabilised by 30 April of each year unless otherwise approved in writing by the Waikato Regional Council. Stabilisation shall be undertaken by providing adequate measures (vegetative and/or structural and including, pavement, metalling, hydroseeding, revegetating and mulching) that will minimise erosion of exposed soil to the extent practicable.

Advice Note: For the avoidance of doubt earthworks authorised by this consent include establishment and preparation for the discharge of managed fill and overburden disposal and any other works necessary to maintain and the rehabilitate the site. It does not include managed fill disposal, overburden disposal and handling and recontouring of the managed fill site which is authorised under AUTH144475.02.01 and AUTH144475.03.01

4. Requests to undertake works during the period 1st May to 30th September inclusive shall be submitted in writing to the Waikato Regional Council at least 20 working days prior to the commencement of activities under this resource consent and by 1st April each year thereafter, and shall be in the form of amendments to the approved E&SCP – Schedule One, General Conditions.
5. At least 10 working days prior to the commencement of activities under this resource consent, the consent holder shall submit to Waikato Regional Council an updated Contaminated Site Management Plan (CSMP) for Fill Area 3. Prior to submitting the CSMP to the Waikato Regional Council, the CSMP shall be submitted to the Waikato District Council for comment. Any comments received shall be provided to the Waikato Regional Council with the updated CSMP. The CSMP shall be certified in writing by the Waikato Regional Council prior to the commencement of activities under this resource consent. Any changes to the CSMP shall be reviewed and certified in writing by the Waikato Regional Council acting in a technical certification capacity prior to the changes being made.

Advice Note: A draft CSMP was provided during the application process to both support the regional earthworks application and to the Waikato District Council to support the application for land disturbance works under the NES-CS. The draft CSMP is titled 'Contaminated Site Management Plan, Proposed Huntly Managed Fill – Fill Area 3', prepared by EHS Support, dated 1 September 2021 (WRC doc # 21810518).

6. All establishment works shall be carried out in accordance with the Contaminated Site Management Plan.

CONDITIONS

1. This consent is subject to compliance with Schedule One – General Conditions.

CONDITIONS

1. This consent is subject to compliance with Schedule One – General Conditions.
2. The maximum volume of fill (all types) shall not exceed the volumes and areas set out in the following table and as demarcated in the application document.

Fill Area	Size (ha)	Fill Volume (m ³)
2	3.8	632,600
3	4.2	576,600
4	5.1	800,000
Total	13.1	2,009,200

Fill Acceptance

3. Managed fill and cleanfill material accepted for disposal pursuant to this consent shall comply with the Fill Acceptance requirements listed in Schedule 3 and Condition 12 (below) Maximum Acceptance Criteria for Contaminant Concentrations.
4. This consent only authorises the disposal of construction and demolition fill that result from site construction and/or demolition activities, providing those wastes are listed as “Acceptable Wastes” in Schedule 3 of this consent.
5. Fill listed as “Prohibited” in Schedule 3 shall not be accepted.
6. Any soil removed from Fill Area 3 during the construction of the fill area will be tested at no less than 1 in 500m³ of material disturbed or at the frequency specified in the Contaminated Site Management Plan (required by AUTH144475.01.01), whichever the most frequent. All excavated fill material shall be disposed of at an appropriate facility.
7. The operations shall be undertaken in accordance with the certified Site and Fill Management Plan (SFMP) as required by Schedule One.

Fill Quality

8. The consent holder shall maintain a site log book (which may be digital or hard copy) to identify all loads entering the site, recording the number of trucks and estimated volume, and the source and type of material deposited, and the location of deposition. This site log shall be provided to Council annually, by 31 March (for the period 1 April to 31 March, for each year that this consent is exercised, or within 5 working days of any written request to do so.
9. Fill originating from any sites where there is evidence to suggest that an activity outlined on the Ministry for the Environment’s Hazardous Activities and Industries List has been, or is currently being, carried out, shall only be accepted by the consent holder:

- I. Where those sites have been sampled and tested in accordance with Contaminated Land Management Guideline Number 5 – Site Investigation and Analysis of Soils, Ministry for the Environment, Revised 2021 (or any subsequent updates), by a suitably qualified and experienced practitioner; and
 - II. Where the results of those investigations have been provided to the consent holder and reviewed for compliance by the Site Manager with the acceptance criteria specified in this resource consent.
 - III. Soil Sampling Verification reports shall be retained to be provided upon request to Waikato Regional Council.
10. At least two loads per day (that the managed fill is receiving waste) will be randomly selected by the Fill Manager. Analysis will be undertaken by a trained and qualified staff member in accordance with the XRF protocols outlined in BS EN 16424: Characterisation of waste. Screening methods for the elemental composition by portable X-ray fluorescence.
- I. In the event that only one load of fill has been received for the day, then that load will be subject to analysis by portable X-ray fluorescence (XRF).
 - II. In the event that material scanned by portable XRF indicates any exceedance of acceptance criteria, the load will be rejected or quarantined (pending the results of laboratory testing). Further material from the source site will be prohibited pending subsequent evidence of acceptability being established in accordance with the fill acceptance criteria.
11. Random analytical testing of all imported fill material (excluding overburden) shall be undertaken for the chemical parameters listed in condition 11 at a rate of no less than one sample per 500 m³ of imported fill material.

Analytical Soil Testing Verification records shall be retained to be provided upon request to Waikato Regional Council.

Advice Note: *On arrival at site, random analytical testing at a rate of no less than one sample per 500 m³ is required for all fill (excluding overburden sourced from the adjacent quarry) imported to the site including fill that has been pre-tested. This is to ensure that the lab results are specific to the fill accepted at the site and that testing has been undertaken to the approved protocol and for the full suite of parameters.*

12. The analytical testing shall demonstrate that chemical parameter concentrations in the imported fill are at or below the Fill Acceptance Criteria (Table 1) for the Maximum Waste Acceptance Criteria (> 2 m) (mg/kg); the SPLP Leachability Limits (mg/L)⁸; and the Maximum Truckload Fill Concentrations Shallow (<2 m) Cleanfill (mg/kg). All imported fill that exceeds the Shallow Fill Acceptance Criteria shall be placed at a depth greater than 2.0 metres from the identified finished landform levels.

Table 1. Fill acceptance criteria.

Contaminant Type	Parameter ¹	Maximum Waste Acceptance Criteria (> 2 m) (mg/kg)	SPLP Leachability Limits (mg/L) ⁸	Maximum Truckload Fill Concentrations Shallow (<2 m) Cleanfill (mg/kg)
Elements	Arsenic	100 ²	-	12
	Boron	45 (260) ³ <u>20</u>	2 ²	45
	Cadmium	7.5	-	0.65
	Chromium	400 <u>150</u>	-	55
	Copper	325 <u>280</u>	-	45
	Mercury	1.5	-	0.45
	Nickel	65 (320) ²	1 ²	35
	Lead	250	1 ²	65
	Thallium	23	-	1
	Zinc	400 (1,200 2,000) ²	1 ²	180
BTEX Compounds	Benzene	0.112	-	0.0054
	Toluene	1.0	-	1.1
	Ethylbenzene	1.1	-	1.0
	Total xylenes	0.61	-	0.61
Polycyclic Aromatic Hydrocarbons (PAH)	Benzo-a-pyrene (eq)	20	-	0.0054
	Naphthalene	7.2	-	0.013
Total Petroleum Hydrocarbons (TPH)	C ₇ -C ₉	120	-	120
	C ₁₀ -C ₁₄	300 (600 1,400) ³	-	58
	C ₁₅ -C ₃₆	20,000 ⁴	-	-
Others	DDT and isomers	28.4	-	0.7
	Aldrin	0.17	-	-
	Dieldrin	0.17	-	-
	Tributyltin	6 ⁵	0.3 ⁵	
Asbestos				

Notes:

1. All values in mg/kg unless otherwise stated.
2. Ministry for the Environment (MfE) 'National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health' (MfE, 2012) for a commercial/industrial outdoor worker.

3. Auckland Regional Council (ARC) 'Technical Publication 153 (TP153) – Background Concentrations of Inorganic Elements in Soils from the Auckland Region' (ARC, 2001).
4. Auckland Council (AC) 'Auckland Unitary Plan: Operative Version' (AC, 2018), Table E30.6.1.4.1.
5. MfE' Guidelines for Assessing and Managing Petroleum Hydrocarbon Contaminated Sites in New Zealand' (MfE, 2011). Table 4.15 Tier 1 soil acceptance criteria.
6. MfE' Identifying, Investigation and Managing Risks Associated with Former Sheep-dip Sites: A guide for local authorities' (MfE, 2006).
7. Concentrations of boron above 45 mg/kg, lead above 250 mg/kg, nickel concentrations above 65 mg/kg and zinc above 400 mg/kg in infill materials will require Synthetic Precipitation Leaching Procedure (SPLP) testing to be carried out on the fill materials before acceptance, to demonstrate that elevated concentrations of these elements will not mobilise under conditions likely to be present in the fill area. The in-brackets value is the maximum concentration that can be accepted if SPLP results are satisfactory.
8. Leachability limits from the MfE' Guidelines for the management of hazardous waste – Module 2: Landfill Waste Acceptance Criteria and Landfill Classification' (MfE, 2004) and WasteMINZ (2018) Technical Guidelines for Disposal to Land – Type 2 landfill.
9. Total concentrations from WasteMINZ (2018) for cleanfill (Class 5 landfill Waste Acceptance Criteria).
10. Ridge Road, Quarry Managed Fill Acceptance criteria (2018).
11. Canadian Council of Ministers of the Environment (CCME, 2018) Recommended Criteria for the Protection of Freshwater Life.
12. Thallium guideline value based upon US EPA Regional Screening Levels for thallium sulphate for industrial sites (see <https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables>)
13. Initial screening criteria based on Ridge Road. Value in bracket is the upper limit of TPH based upon criteria if soils meet BTEX and PAH criteria listed above. The higher value is based upon MfE' Guidelines for Assessing and Managing Petroleum Hydrocarbon Contaminated Sites in New Zealand' (MfE, 2011). Table 4.20 Tier 1 soil acceptance criteria for Protection of Groundwater quality.
14. TPH C₁₅-C₃₆ value is based upon MfE' Guidelines for Assessing and Managing Petroleum Hydrocarbon Contaminated Sites in New Zealand' (MfE, 2011). Table 4.20 Tier 1 soil acceptance criteria for Protection of Groundwater quality. ~~The criteria for BaP_{eq} and naphthalene must also be met. and assume soil also meets PAH criteria above.~~
15. MfE' Guidelines for the management of hazardous waste – Module 2: Landfill Waste Acceptance Criteria and Landfill Classification' (MfE, 2004) – Class B landfills. Leachability limits are determined by the TCLP test. Waste containing TBT higher than 6 mg/kg can be accepted as long as it meets SPLP criteria of 0.3 mg/L.
16. Thallium waste acceptance criteria for shallow (less than 2 M) is based on Maximum thallium concentration in farmed soils within the Waikato (rounded down from 1.4 to 1 mg/kg) based upon data presented in Taylor, M., Kim, N., (2009) De-aluminium as a mechanism for increased acid recoverable aluminium on Waikato Soils. Australian Journal of Soil Research, 47, pp 828-838.
17. 95th percentile background soils data for the Waikato region. WRC internal document #10581789.
18. WasteMINZ Technical Guidelines for Disposal to Land, Class 3 WAC.

Advice Note: For concentrations of boron above 20 45 mg/kg, copper above 280 mg/kg, lead above 250 mg/kg, nickel above 65 mg/kg and zinc above 400 mg/kg in fill materials will require Synthetic Precipitation Leaching Procedure (SPLP) testing to be carried out on the fill materials prior to acceptance into the landfill, to demonstrate that elevated concentrations of these elements will not mobilise under conditions likely to be present in the fill area. The in-brackets value is the maximum concentration that can be accepted if SPLP results are satisfactory.

13. The consent holder shall engage an independent suitably qualified and experienced person to undertake a technical review and written report to assess the level of compliance with the conditions of this resource consent. The report shall be provided to the Waikato Regional Council by 30 April on an annual basis and shall be provided to the Waikato Regional Council at the same time as provided to the consent holder. The report shall include;
 - i. An assessment of compliance with the conditions of this resource consent.
 - ii. Assessment of the accuracy of the fill testing frequency and compliance with the maximum Fill Acceptance Criteria.
 - iii. The results of testing of the fill material.
 - iv. Compilation of the all water sampling results for the previous 12 month period and assessment of compliance with the water quality conditions of resource consent AUTH144475.04.01.

- v. Any recommendations to improve environmental outcomes or to address any issues of non-compliance.
14. All material deposited at the sites shall, subject to also meeting the Fill Acceptance Criteria and be restricted to:
- i. materials such as clay, soil and rock and other inert materials such as concrete, brick or demolition materials which are free of combustible materials and are not subject to biological or chemical break down; and
 - ii. inert construction and demolition materials including glass and rock fibres and less than 5% timber. Soil and C&D can contain minor amounts of electrical wiring, plastics and plasterboard as an acceptable material (less than 0.5% of the waste matrix); and
 - iii. asbestos containing materials in accordance with the Asbestos Management Plan.
 - iv. No prohibited material outlined within Schedule 3 and the Site and Fill Management Plan shall be accepted into the managed fill.
 - v. Fill accepted shall not exceed pH 10.
15. Material deposition authorised by this consent shall exclude:
- i. material that has combustible, putrescible or degradable components;
 - ii. materials likely to create leachate by means of biological or chemical breakdown;
 - iii. any products or materials derived from hazardous waste treatment, hazardous waste stabilisation or hazardous waste disposal practices;
 - iv. materials such as medical and veterinary waste, or radioactive substances that may present a risk to human health;
 - v. soils or other materials contaminated with hazardous substances or pathogens;
 - vi. hazardous substances except for asbestos waste;
 - vii. Liquid waste.
 - viii. Coal ash
 - ix. Acid sulphate soils and marine sediments
16. All fill loads shall be inspected before being deposited on site. The load shall be exposed, and spotters or plant operators fully trained in inspection and rejection procedures shall be used to verify the deposited material meets the acceptance criteria as set out in the most recently approved SFMP.
17. In the event that a spotter or plant operator identifies a load that is clearly non-compliant in terms of vegetative composition, foreign material composition, coloured liquids, or strong odour, the material shall be removed from the site within two (2) working days.
18. If any imported fill does not meet the acceptance criteria specified, it shall be removed to a suitably consented off-site disposal facility within two weeks of receiving laboratory test results confirming unacceptability.
19. A Suitably Qualified and Experienced Person (SQEP) shall be at the active fill area no less than two separate days per year to audit the fill acceptance practices on site and to undertake random load sampling (3 composite samples per load) of no less than five truck loads during each audit day. The audits will be undertaken with no more than 48 hours prior notification to the consent holder. The SQEP shall have the samples tested by an accredited laboratory for the following analytes:
- I. Arsenic
 - II. Boron
 - III. Chromium
 - IV. Copper
 - V. Lead

- VI. Zinc
- VII. TPH
- VIII. BTEX
- IX. Cadmium

The sampling results shall be provided to the Waikato Regional Council within 5 working days of the results becoming available.

- 20. The full loads of imported fill subject to sampling, both the routine 500m³ random load sampling and the twice yearly SQEP random load sampling, shall be quarantined and only deposited at the fill sites after test results confirm the fill does not exceed the Maximum Acceptance Criteria.
- 21. The consent holder shall engage a SQEP to undertake 'end of life' composite sampling of each fill site, both the top 2 metre cleanfill layer and the below 2 metre managed fill prior to capping and rehab of the respective site to confirm the fill site complies with the Maximum Fill Acceptance Criteria. The samples shall be analysed by an accredited laboratory for the full suite of contaminants listed in Condition 11, the test results shall be provided to the Waikato Regional Council within five working days of becoming available.

Asbestos Management and Monitoring

- 22. At least 20 working days prior to initially accepting asbestos containing materials, the consent holder shall submit to Waikato Regional Council, for approval in a technical certification capacity, an updated Asbestos Management Plan (AMP) which includes an Asbestos Air Monitoring programme. The AMP shall be certified in writing by the Waikato Regional Council prior to asbestos containing materials being accepted at the fill sites. Any changes to the AMP shall be reviewed and certified in writing by the Waikato Regional Council prior to the changes being made.
- 23. The acceptance and management of asbestos at the site shall be in general accordance with the certified Asbestos Management Plan.

All asbestos importation shall be supervised by a suitability qualified staff member who has a "Class A Certification" in the handling of asbestos in accordance with Worksafe New Zealand's "Management and Removal of Asbestos Approved Code of Practice".

- 24. All asbestos waste and/or asbestos contaminated fill material disposed of at the site shall be disposed of as follows:
- 25. No asbestos waste or asbestos contaminated fill material shall be disposed of within the top 2 metres of the final contours of the site.
- 26. All asbestos waste shall be contained as detailed in the AMP
- 27. All asbestos contaminated fill material shall be received in a covered truck or skip.
- 28. A water cart shall be utilised to ensure that prior to disposal, loads containing asbestos contaminated fill material is dampened to avoid the discharge to air of asbestos fibres during handling.
- 29. The dampened asbestos water and/or asbestos contaminated fill material shall be deposited in to an excavated hole suitably large enough to contain the material and shall be capped immediately to a minimum depth of 1 metre using locally sourced fill material and covered as per the AMP

30. Care shall be taken to ensure that the wrapping or containerisation of any received asbestos waste is not damaged during handling and disposal.
31. A hand-held GPS system shall be utilised to log the location and level of the disposal area within the filling operation.
32. A record shall be kept of the volume, location and level of all asbestos waste and/or asbestos contaminated fill material disposed of at the site and made available to Waikato Regional Council on request and reported on annually (before 31 May).
33. Asbestos air monitoring shall be undertaken in general accordance with the certified Asbestos Air Monitoring Programme.

Monitoring, sampling and testing

34. All sampling and testing of cleanfill, managed fill, sediment and water quality shall be overseen by a suitably qualified and experienced practitioner.

Records of sampling and testing, analytical results, and any consequential actions must be kept by the Site Manager and made available to Waikato Regional Council upon request.

Advice Note: Guidance on the interpretation of a suitably qualified and experienced practitioner is provided in the Ministry for the Environment's Users' Guide – National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health, April 2012.

35. Subject to compliance with the conditions of this consent, all monitoring of surface water, subsoil drainage and sediment discharges from the site is to be undertaken in accordance with the Site and Fill Management Plan and surface water Sampling and Analysis Plan, as specified in Schedule One – General Conditions and the conditions of resource consent AUTH144475.04.01, until such time as the fill activities on site have ceased and the site has been rehabilitated.

Sediment Pond Sampling

36. Representative sampling of the accumulated sediment within the sediment ponds and any artificial wetland shall be undertaken prior to disposal during regular maintenance and prior to decommissioning a pond.
37. Samples collected from the sediment from the sediment ponds and any artificial wetland shall be tested at an IANZ accredited laboratory. Only sediment that meets the Fill Acceptance Criteria may be disposed of within the site.

Any sediment removed offsite must be disposed of at a facility authorised to receive material of that kind.

Site Security

38. The consent holder shall ensure that appropriate site security is maintained at all times to ensure that no dumping of unauthorised material occurs.

Rehabilitation of Fill Site

39. The final land shape and capping of the managed fill will be determined by the proposed end use of the site. The fill sites shall be rehabilitated in accordance with the most up to date technical

publication endorsed by Ministry of Environment for Cleanfill and Managed Fill sites. The cover and revegetation should promote sound land management and conservation, prevent hazards and protect amenity. The final cover/capping details will be determined as part of the engineered fill requirements and included in the Rehabilitation Management Plan (Schedule One – General Conditions) for certification by the Waikato Regional Council. The determination of the rehabilitation and cover requirements will demonstrate consistency with permitted land-use activities in the Waikato District Plan and shall as a minimum consider the following technical publications (or any subsequent updates):

- *Guide to the Management of Cleanfills, Ministry of Environment, January 2002*
- *Technical Guidelines for Disposal to Land, Waste Management Institute New Zealand (WasteMINZ), October 2022*

Groundwater

40. The consent holder shall engage a groundwater specialist to develop a framework for groundwater investigation, including the installation of monitoring bores if contamination of surface flow is observed not attributable to overland runoff. The framework shall be incorporated into the Sampling and Analysis Plan required by APP144475.04.01 and subject to WRC review and certification.
41. Additional to condition 40 above, should a perched shallow water table be identified during construction of Fill Area 2 which is likely to impact on contaminant transport from that area in a westerly direction, then fate and transport modelling shall be undertaken to determine the appropriateness of the proposed waste acceptance criteria for that fill area for ensuring sufficient protection for the Lake Puketirini catchment.

Acid Sulphate Soils (ASS) and Peat Soils

42. Acid sulphate soils (including peat soils) shall only be received at the site subject to provision of adequate evidence prepared by a SQEP that the soils have been limed and stabilised. pHox testing of representative samples of soils from each delivered load prior to acceptance must be provided to the Waikato Regional Council as an additional level of confirmation of adequate treatment. Lime stabilised ASS and peat soils shall only be accepted at the site after written approval has been obtained from the Waikato Regional Council specific to each tested load.

CONDITIONS

1. This consent is subject to compliance with Schedule One – General Conditions.
2. Prior to the commencement of any stormwater discharge to the receiving environment, the discharge contaminant criteria and receiving water trigger limits for each of the contaminants listed in condition 5 shall be set out within a revised Sampling and Analysis Plan (SAP) and must be consistent with the discharge contaminant criteria and receiving water criteria specified in Schedule 4 to this resource consent. The SAP shall be provided to Council within 20 working days from the completion of testing. The discharge of stormwater shall only commence after the Waikato Regional Council has reviewed and given written certification of the SAP.
3. The suspended solids concentration of any sediment retention pond discharge shall not exceed 100g/m³ or the sediment retention pond shall treat water to no less than 90% efficiency. In the event that the discharge water exceeds suspended solids concentrations 100g/m³ and laboratory analysis confirms that the 90% treatment efficiency is met, an independent Erosion and Sediment Control Specialist shall inspect the site's erosion and sediment controls and confirm in writing to the Waikato Regional Council that the controls are best practice and in accordance with the Waikato Regional Council Erosion and Sediment Control Guidelines.
4. To demonstrate compliance with condition 3 of this resource consent, the consent holder shall take samples of the discharges from the inlets and outlets of all sediment retention ponds on the site a minimum of once per month and after rainfall trigger events (rainfall greater than ≥15mm in one hour; or ≥25mm in 24 hours in the preceding 24 hours), excepting times when there are no discharges.

Surface water discharge samples shall be submitted to an accredited laboratory for analysis of the following parameters:

- a. pH (to demonstrate it does not fall outside the range of 5.5 to 9);
 - b. Total suspended solids, to demonstrate it is not greater than 100 g/m³ or the sediment retention pond/s stormwater treatment is 90% treatment efficiency;
 - c. Turbidity
5. In addition to the sampling required in condition 4, surface water samples shall be collected from the discharge points at the end of the treatment systems DS1, DS3 and DS5 five times per year and from the downstream sampling points DS2 and DS5 as identified in the Sampling and Analysis Plan on a two monthly basis, excepting times when there are no discharges, until such time as the fill activities on site have ceased and the site has been rehabilitated.

Surface water samples shall be submitted to an accredited laboratory for analysis of the following contaminants;

(a) Dissolved Aluminium (0.22 um filter); (b) Dissolved Arsenic; (c) Dissolved Boron; (d) Dissolved Cadmium; (e) Dissolved Chromium; (f) Dissolved Copper; (g) Dissolved Lead; (h) Dissolved Nickel; Dissolved Thallium; (i) Dissolved Zinc; and (j) Total petroleum hydrocarbons (TPH).

Flowrates will also be measured and recorded at the time that samples are collected.

6. Within five working days of the receipt of water sampling results, the consent holder shall ensure that all results of the analysis along with flowrates are forwarded to Waikato Regional Council.
7. In the event that any result for a contaminant (dissolved fraction in condition 8) exceeds the water quality criteria as specified in Schedule Four or in the certified SAP:
 - a) The consent holder shall engage a suitably qualified and experienced person to undertake verification sampling of deposited fill at the respective fill site/s; and the following contingency measures shall be undertaken:
 - b) Repeat monitoring within a 10 working day period or the next stormwater run-off event. If water quality is within the trigger levels continue routine compliance monitoring frequency.
 - c) If repeat monitoring confirms trigger level exceedance(s) then a review of the Erosion and Sediment Control Plan and Site and Fill Management Plan (SFMP) shall be undertaken by a suitably qualified and experienced professional to determine what corrective actions need to be applied to avoid further trigger level exceedance(s). The outcomes of this review shall be provided to Waikato Regional Council within 20 working days of the confirmed trigger level exceedance(s).
On approval by Waikato Regional Council, the proposed corrective actions identified through the review will be implemented by the consent holder within 2 months.
8. If repeat monitoring confirms water quality trigger level exceedance(s) at any of the sampling points as a direct result of the managed fill activity, notwithstanding any separate enforcement actions for the consent non-compliance, the consent holder shall engage an independent suitably qualified and experienced person to evaluate the level of ecological effect and the delivery of proportionate ecological compensation shall be undertaken.

Chemical Treatment Management Plan

9. At least 20 working days prior to the commencement of activities under this resource consent the consent holder shall provide the Waikato Regional Council with a draft Chemical Treatment Management Plan (CTMP). The CTMP shall be submitted to the Waikato Regional Council for approval in writing– acting in a technical certification capacity. The CTMP shall include as a minimum:
 - i. An analysis identifying which devices require flocculation, this analysis taking into account;
 - ii. The soil's reactivity to flocculants based on soil tests;
 - iii. The size of the contributing catchment that the pond is treating;
 - iv. The likely duration of the ponds use;
 - v. Specific design details of the flocculation system;
 - vi. Monitoring (including pH and any other testing procedures), maintenance (including post storm)
 - a. and including a record system;
 - vii. Details of optimum dosage (including assumptions);
 - viii. Results of any initial flocculation trial;
 - ix. A spill contingency plan;
 - x. Contact details of the person responsible for the operation and maintenance of the flocculation
 - xi. Treatment system and the organisational structure to which this person shall report.

10. Any changes proposed to the CTMP shall be confirmed in writing by the consent holder and approved in writing by the Waikato Regional Council acting in a technical certification capacity, prior to the implementation of any changes proposed.
11. Unless site specific analysis provides evidence to the contrary, all sediment retention ponds shall be chemically treated in accordance with the CTMP.
15. The pH of any sediment retention pond discharge shall not be less than 5.5 or greater than 9 pH units.

Surface Water Quality - Huntly Managed Fill Sampling and Analysis Plan (SAP)

16. At least 20 working days prior to the importation of cleanfill and managed fill to the site, the consent holder shall submit to Waikato Regional Council, for approval in a technical certification capacity, an updated Huntly Managed Fill Sampling and Analysis Plan (SAP). The SAP shall include;
 - a. Include a plan that identifies the locations of water sampling points.
 - b. Details of how the sub-soil drainage water will be stored, tested, treated and disposed of.
 - c. Include a table of the contaminants the water samples will be tested for and the respective maximum concentration limits for each contaminant. The table will as a minimum include the contaminants listed in condition 5.
 - d. Set out the water testing regime and sampling frequency which will be no less than as prescribed in the conditions of this consent.
 - e. Identify process and timeline from collecting the samples through to laboratory analysis.
 - f. Contingency measures in the event of water quality criteria exceedances.
17. Any changes to the SAP shall be reviewed and certified in writing by the Waikato Regional Council prior to the changes being made.
18. The SAP shall be updated on an annual basis by a SQEP to ensure the plan is up to date and consistent with any changes in legislation and guidelines.

Adaptive Management Plan

19. At least 20 working days prior to the commencement of filling, an updated Adaptive Management Plan shall be submitted to the Waikato Regional Council for written approval in a technical certification capacity. The updated Adaptive Management Plan could be an update of the draft *Erosion and Sediment Control Adaptive Management Plan – Huntly Managed Fills 2 – 4 – for Gleeson Quarries Huntly Limited*; 10 May 2020, Rev B, prepared by SouthernSkies Environmental Limited. The objective of the Adaptive Management Plan is to provide a process to ensure that the downstream effects of the filling activities remain within the range assessed as acceptable under this consent. It will provide procedures for monitoring of the site and the downstream receiving environment that is additional to the day to day monitoring of erosion and sediment control measures necessary to ensure compliance with this consent and Schedule One.

The Adaptive Management Plan shall include, but no be limited to, the following:

- a. Methodology to monitor and quantify the efficiency of sediment retention ponds.
- b. Methodology for monitoring of water quality and stream health at locations downstream of each sediment retention pond (and upstream where achievable) including a plan and aerial imagery showing the monitoring locations.

- c. Trigger rainfall events of 15mm/hr and 25mm/24 hours for site monitoring (in addition to day to day erosion and sediment control device monitoring and maintenance).
 - d. Monitoring and contingency response programme to be implemented in response to rainfall trigger events including response thresholds for turbidity (90% sediment retention pond efficiency), clarity (100mm) and pH (5.5 to 9.0).
 - e. Realtime continuous automated turbidity monitoring of the inflow and outflow of sediment retention ponds, and continuous automated monitoring of outflow discharge water volumes of sediment retention ponds.
 - f. Method to calculate annual sediment yield discharged from the site.
 - g. Trigger event-based recording of turbidity and pH for the duration of the consent.
 - h. Trigger event-based sampling of inflows and outflows and analysis for turbidity, total suspended solids and pH for the duration of the consent.
 - i. Event based inspection and sampling of the immediate receiving environment.
 - j. Details of the person or bodies that will hold responsibility for the on-site implementation of the Adaptive Management Plan.
 - k. Procedures and timeframes for reporting the monitoring results to the Waikato Regional Council.
 - l. The monitoring programme will include details of how a correlation will be developed between measured turbidity and total suspended solids. The monitoring programme will also detail how this correlation will be monitored and verified.
 - m. Criteria for the discharge from the site which is consistent with the conditions of this resource consent, including trigger levels, as well as a management programme and environmental mitigation/compensation actions which outlines the response if discharge criteria is exceeded.
 - n. Quarterly biological monitoring of native fish and macroinvertebrate indicators at downstream sampling locations.
20. Any proposed revisions of the Adaptive Management Plan must be submitted the Waikato Regional Council for certification – acting in a technical certification capacity prior to formalising and implementing the revised Adaptive Management Plan.
21. If in the Council’s opinion, there are changes required to be made to the AMP as a result of observed downstream effects or as identified within the site reporting, Council may request that the AMP be updated to address these matters. If a request is made, the revised plan shall be submitted to the Waikato Regional Council for certification – acting in a technical certification capacity within five working days of the request for written approval prior to implementation.
- Advice Note:** *The AMP is a live document and updates are expected to address any unforeseen circumstances or changes in the earthworks and filling methodology as the site responds through its adaptive monitoring regime to ensure the potential for sediment discharges are minimised.*
22. The consent holder shall make available all monitoring results and data required by the AMP upon the request of the Waikato Regional Council.

Subsoil Drainage Water

23. Water discharged from the sub-soil drains will be sampled and tested for pH, boron, copper, lead and zinc. If the results exceed the Level 1 criteria (relevant to a minimum pond volume of 470 m³ and maximum discharge volume of 30 m³) or Level 2 criteria (relevant to a minimum pond volume of 750 m³ and maximum discharge volume of 30 m³) then the water will be either treated on-site to meet these criteria or removed off-site for disposal.

Parameter	Trigger Values (mg/L)
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	Level 1 Criteria	Level 2 Criteria
Total boron	1.0	5.0
Total copper	0.5	1.25
Total lead	0.1	0.25
Total zinc	0.1	1.55
pH	6 – 9	6 - 9

Advice Note: The Consent Holder may utilise a benchtop spectrophotometer to use ultra-violet to visible light to quickly measure the concentration of metals etc to determine if subsoil drainage water is of acceptable quality to be either treated within the stormwater retention pond, used on-site for dust suppression, further treated on site before discharge, or removed for disposal.

Down Gradient Municipal Drinking Water Supply

24. If an event of the type described below occurs, the consent holder shall notify, as soon as reasonably practicable, the Waikato District Council and the Group Manager, Resource Use, Waikato Regional Council, advising the nature of the event and the nature of the potential significant adverse effect on water quality that may result. The types of events subject to this condition are:
- a) those arising directly from the activity itself, for example spillage of chemicals/contaminants and uncontrolled sediment laden water discharging from the site.
 - b) those arising as a consequence of any other event, for example, unusually heavy rainfall resulting in poor quality water that does not meet the consented acceptance criteria for contaminants discharging from the site.
25. The groundwater and surface water testing and sampling frequency specified in this resource consent shall be undertaken for at least the duration of each active fill site. On capping and completion of each fill site, the consent holder may apply to the Waikato Regional Council by way of an update to the SAP to reduce the water sampling programme frequency to no less than six monthly for the duration of the consents and until such time as it is deemed that resource consent is no longer required for the fill site discharges, that the discharges meet the permitted activity standards.

APP144475.05.01**To take and divert groundwater and divert stormwater all in association with Fill Areas 2, 3 and 4****CONDITIONS**

1. This consent is subject to compliance with Schedule One – General Conditions.
2. Any water take authorised by this resource consent shall be a zero net take.
3. The activities authorised by this consent shall comply at all times with the standards of resource consent AUTH144475.04.01 which authorises discharges from the site.
4. The consent holder shall ensure diversion of clean water shall be in accordance with the E&SCP as required by Schedule One – General Condition.
5. The consent holder shall design all structures and any diversion channels for a design flow capacity of 1 in 100 year flow events (1% AEP Annual Exceedance Probability).
6. The consent holder shall control and divert stormwater which is not affected by filling activities away from areas disturbed by filling activities.
7. The consent holder shall ensure that any water diversions authorised by this consent are carried out in a manner that erosion is minimised.
8. The consent holder shall ensure that scour protection is constructed in any outlet structures.
9. The consent holder shall ensure that any water diversion channels are maintained in good working order and clear of obstructions at all times.
10. The consent holder shall ensure that any diversion channels at the site are inspected on a weekly basis or within 24 hours of each rainstorm event exceeding 20 millimetres within the preceding 24 hour period. A record shall be maintained of the date, time and any maintenance undertaken in association with this condition which shall be forwarded to the Waikato Regional Council upon request.

APP144475.06.01	To undertake stream diversions, reclamation of streams and associated bed disturbance in association with filling Areas 2, 3 and 4.
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CONDITIONS

1. This consent is subject to compliance with Schedule One – General Conditions.
2. The infilling and disturbance of an artificial or constructed wetland and stream within the fill footprints is to occur gradually from the top of the gully systems (if applicable) to enable fish to move downstream naturally, and to minimise the fish capture and translocation activities required.
3. All works authorised by this resource consent shall be undertaken in accordance with the approved Ecological Management Plan and Fish Management Plan (Schedule One, General Conditions).
4. On completion of each fill site the 'end of life' sediment retention pond below each fill site will be enhanced and converted to permanent wetland.

APP144475.07.01**To discharge treated stormwater to land and/or water
within 100 metres of a natural wetland****CONDITIONS**

1. This consent is subject to compliance with Schedule One – General Conditions and AUTH144475.04.01.
2. The bed profile and hydrological regime of any natural Wetland shall remain in original condition and not be changed by the activities authorised under this resource consent. To verify compliance with this requirement, the consent holder shall maintain a record by taking photographs of any natural wetland within 100 metres of any groundwater or stormwater discharge point prior to the commencement of activities under this resource consent and on an annual basis thereafter for the duration of the resource consent. The consent holder shall provide the photographs to the Waikato Regional Council on an annual basis as part of the Annual Compliance Report, Condition 47, Schedule One – General Conditions.

CONDITIONS

The granting of resource consent numbers AUTH144475.01.01, AUTH144475.02.01, AUTH144475.03.01, AUTH144475.04.01, AUTH144475.05.01, AUTH144475.06.01 and AUTH144475.07.01 are subject to the following general conditions that shall apply to each individual consent. Where there may be differences or apparent conflict between the general conditions and conditions contained in either the individual consents contained within this suite, or any other consent referred to below, the conditions contained in the respective individual consents shall prevail.

1. Except as specifically provided for by other conditions of this consent, all activities to which this consent relates shall be undertaken in general accordance with the resource consent conditions below, the information contained in the application for this consent and the following supporting documents:
 - Updated AEE, version dated 12 July 2022, prepared by Paua Planning (WRC doc 24343573)

Pre-Start

2. The consent holder shall appoint a representative(s) prior to the exercise of this resource consent who shall be the Waikato Regional Council's and the Waahi Whanui Trust's principal contact person(s) in regard to matters relating to this resource consent. The consent holder shall inform the Waikato Regional Council, Waikato-Tainui and Waahi Whanui Trust of the representative's name and how they can be contacted, prior to this resource consent being exercised. Should that person(s) change during the term of this resource consent, the consent holder shall immediately inform the Waikato Regional Council and shall also give written notice to the Waikato Regional Council, Waikato-Tainui and the Waahi Whanui Trust of the new representatives name and how they can be contacted.
3. Prior to exercising this consent the consent holder shall establish a monitoring team which is to be managed by a nominated and specified person as agreed between the Consent Holder and WRC. The monitoring team shall consist of personnel who have clearly defined roles and responsibilities to monitor compliance with the consent conditions and will be available to meet with the Waikato Regional Council monitoring personnel on a basis as agreed in writing, to review monitoring and compliance issues. The functions of the monitoring team shall include:
 - a) installing, monitoring and maintaining erosion and sediment controls;
 - b) fill and sediment sampling;
 - c) water quality sampling;
 - d) ecological monitoring;
 - e) cultural monitoring; and
 - f) recording and reporting on other information required by this consent.

Note: clause a) to c) above shall be specifically monitored by the appropriately qualified and experienced erosion and sediment control specialist as agreed with WRC. The erosion and sediment control specialist shall be;

- a) Be experienced in erosion and sediment control implementation and monitoring;
- b) Be recognised by his/her peers as having a high level of knowledge and skill as appropriate for the role;
- c) Have completed recognised training in erosion and sediment control.

4. The consent holder shall engage with the Waahi Whanui Trust and ensure that the Waahi Whanui Trust is notified in writing at least 10 working days prior to any soil disturbance occurring; and that the Waahi Whanui Trust is invited to act as cultural monitors to observe all topsoil removal at the site on an ongoing basis as each stage of works progresses.
5. The consent holder shall arrange and conduct a pre-construction site meeting and invite, with a minimum of 20 working days notice, the Waikato Regional Council, the Waahi Whanui Trust or iwi representatives, the site representative(s) nominated under conditions 2 and 3, the contractor, and any other party representing the consent holder prior to any work authorised by this consent commencing on site.

Fill Stability

6. The separation distance between the edge/toe of Fill Area 3 and the northern most property boundary shall be no less than 28 metres.
7. The consent holder shall engage a chartered professional engineer to inspect the active fill site no less than annually; and to confirm the fill site design and stability is in general accordance with engineering best practice and the resource consent. Annual fill stability reporting on the active fill site shall be undertaken by the nominated chartered engineer until completion with final completion report provided for rehabilitated sites. Annual reporting shall include recommendations to identify and address any issues found.

The written report shall be provided to the Waikato Regional Council annually by 31 May for each year that this resource consent is active.

8. Any fill material must be placed so that it does not result in land instability.
9. At least 20 working days prior to the exercise of this resource consent, the Consent Holder shall provide evidence that the area proposed for filling in FA3 is geotechnically stable to receive fill material, along with the following information: a) Volume of old mine tailings to be excavated b) Details of any stockpiling/storage of mine tailings c) Details of any exportation of contaminated material d) Sample testing of mine tailings to confirm contaminants and leachate e) Sediment & Erosion Plan to ensure no leachate of mine tailings into stream f) Contaminants Plan if elevated levels found in excavated material
10. The fill site design, construction and fill placement is to follow Geotechnical best practice and be in general accordance with the Gaia Engineers Ltd. design report reference: 2325-74-GQ-01 dated 23/07/2021 and the applicable Waikato Regional Council code of practise for land development and subdivision – earthworks and geotechnical requirements. Geotechnical site inspections shall be as per the construction specification shown on drawings 2325-74-01 to 04 included in Appendix A which includes the noted hold points and inspection requirements. Inspection frequency shall be determined by the stage of construction and corresponding nature of earthworks and no less than annually each inspection, the supervising geotechnical engineer shall provide a written report to the Waikato Regional Council on adherence with recommendations in the Gaia Engineers design report reference: 2325-74-GQ-01 dated 23/07/2021 and with any subsequent Geotechnical recommendations.
11. The supervising geotechnical engineer shall review the results of the testing and technical monitoring carried out in accordance with the recommendations and construction specification outlined in the Gaia Engineers Ltd. design report reference: 2325-74-GQ-01 dated 23/07/2021. Monitoring and testing include: displacement monitoring (Location, monitoring frequency and alert criteria shown on drawing no.: 2298-74-103 included in Appendix A), fill compaction and construction monitoring (refer

to construction specification drawings no.: 2298-74-01 to 04 included in Appendix A). The monitoring results shall be made available to the Waikato Regional Council upon written request.

Community Liaison Group

12. Within six months of the commencement of this consent, the consent holder shall establish a Community Liaison Group (CLG) comprising of a maximum of TWO Huntly community representatives, maximum of TWO representatives of the Waikato Regional Council, maximum of TWO representatives of the Waikato District Council, maximum of TWO representatives of tangata whenua, and any other key stakeholders as determined appropriate by the consent holder or the Waikato Regional Council.

The function of the CLG is to provide a line of communication between the consent holders, the wider community and key stakeholders for the duration of the consent.

The consent holder shall facilitate CLG meetings at a frequency no less than six months for the first two years and then at a lesser frequency if agreed with the CLG.

Advice Note: *The CLG is not a decision-making group, but a forum for the dissemination of information from the consent holder and provides the opportunity to comment on consent compliance and provide recommendations for changes to operations, monitoring and adaptive management.*

Representatives of tangata whenua shall be from the Waahi Whanui Trust or Waikato Tainui or both.

Rehabilitation Management Plan

Within six (6) months of the commencement of this consent, the consent holder shall submit to Waikato Regional Council, for approval in a technical certification capacity, a Rehabilitation Management Plan (RMP).

13. The RMP shall include, but not be limited to the following matters:
- (a) Identify the final (future) landform once fill operations have ceased and each fill area capped; and
 - (b) Contain an implementation strategy that clearly identifies the timing of all rehabilitation works within the filling stage areas including:
 - i) Identification and timing of progressive and closure rehabilitation works;
 - ii) On-going management strategy for weed and pest control;
 - iii) Procedures to be adopted in the handling and storage of topsoil, subsoil and overburden materials to ensure their continued viability for establishing pasture (or other identified vegetation cover).
 - (c) The design and construction procedures, stability of final landform; and
 - (d) Measures to avoid the over compaction of soils; and
 - (e) Stormwater drainage/soakage of final landform; and
 - (f) Ecological enhancements; and
 - (g) Reporting and review outcomes; and
 - (h) Achieving the minimum fill site cover and capping requirements as set out in the conditions of resource consent AUTH144475.03.01
 - (i) As-builts for subsoil drainage
 - (j) Any ongoing monitoring following site closure including water quality criteria
14. The consent holder shall undertake the mitigation and rehabilitation of the filling area in accordance with approved RMP and under the supervision of persons with appropriate restoration and rehabilitation experience.

15. The consent holder shall review and update the RMP every three years and within 6 months of any decision to cease filling operations at the site. Any changes (excluding changes to contact person & contact details etc.) to the RMP must only be made with the written approval of the Waikato Regional Council.

Site and Fill Management Plan (SFMP)

16. At least twenty (20) working days prior to accepting clean or managed fill to the site (excluding overburden from the quarry), the consent holder shall submit a draft Site and Fill Management Plan (SFMP) to Waikato Regional Council for written approval acting in a technical certification capacity.

The objective of the SFMP is to set out practices and procedures to be undertaken to manage the receipt and disposal of fill at the site and to comply with the conditions of this consent.

17. The SFMP shall include, but not be limited to the following matters:
- (a) Procedures to record the name and address of contractors dumping fill at the site;
 - (b) The specific location of the fill placement areas including asbestos disposal;
 - (c) Acceptance criteria for fill to be disposed on site (including sampling requirements);
 - (d) A description of operational procedures and monitoring that will be implemented to prevent unauthorised material from entering the site;
 - (e) A description of operational procedures and monitoring that will be implemented for the acceptance, handling and disposal of asbestos;
 - (f) Contingency measures for containing and managing unacceptable waste;
 - (g) Specific design details, construction and certification procedures to ensure long term stability of fill areas;
 - (h) The testing regime to confirm that all material received on site complies with the acceptance criteria;
 - (i) Description of stormwater management system (including design specification, location and management of all structures);
 - (j) Procedures for improving and/or reviewing the SFMP;
 - (k) Procedures for undertaking verification sampling of fill deposited across the active landfill areas if required by AUTH144475.04.01 (in the event stormwater discharge quality exceeds consented criteria) and by AUTH144475.03.01 (prior to closure of each fill site).
 - (l) Procedures for fill screening methods for the elemental composition by portable X-ray fluorescence as required by AUTH144475.03.01.
18. The consent holder shall operate the site in accordance with all the approved Management Plans including the SFMP. Any changes to the SFMP must only be made with the written certification of an authorised officer the Waikato Regional Council.
19. The Site and Fill Management Plan shall be updated on an annual basis by a SQEP to ensure the plan is up to date and consistent with any changes in legislation and guidelines.

Ecology

20. Prior to the exercise of this resource consent (excluding 'g' and 'h' below which are subject to extended timeframes) the consent holder shall submit an Ecological Management Plan (EMP) to the Waikato Regional Council for certification, to confirm that the activities undertaken in accordance with the EMP will achieve the objectives of the plan and compliance with the relevant consent conditions. Any subsequent review of the EMP shall also be submitted to the Waikato Regional Council for written approval acting in a technical certification capacity. The consent holder shall meet the costs of the production, certification, monitoring and peer review of the EMP.

The overall objective of the EMP shall be to set out the practices and procedures to be adopted to ensure compliance with consent conditions and shall include:

- a) Timeframes for implementation of fencing and each area of planting, review and reporting requirements and the nature of proposed review and reporting requirements;
 - b) Identification of appropriate methodologies and monitoring procedures to ensure all mitigation measures undertaken are effective;
 - c) The planting and fencing proposed including the number of plants required;
 - d) Provision for weed and/or pest control;
 - e) A maintenance programme to ensure all the rehabilitated areas are maintained, including fencing from stock, weed and pest control, planting protection and replacement to ensure the revegetation and mitigation works are successful;
 - f) A Fish Management Plan, including translocation plan;
 - g) Within six months of commencement of activities under this consent, mechanism for covenanting of the compensation area or an equivalent formal legal protection via an appropriate instrument linked to the title, including gully restoration of no less than 3.75 hectares;
 - h) Within six months of commencement of activities under this consent, an enhancement and planting plan to progressively convert each sediment retention pond to permanent wetland on completion of each corresponding fill site.
 - i) Advice on the value of the bond for remediation; and
 - j) Monitoring requirements.
21. A compensation plan shall be prepared and implemented that mitigates wetland loss on a like-for-like basis as proposed in the EIA, i.e. the loss of wetland area be compensated by the creation of an area of the same or larger extent elsewhere. This could potentially be incorporated into the proposed sediment ponds.
22. The consent holder shall engage a suitably qualified and experienced ecologist to develop a site-specific lizard salvage and mitigation plan for each fill area. The lizard salvage and mitigation plan shall include undertaking a lizard site-specific survey and salvage prior to and during habitat removal, to minimise mortality to any resident population. A suitable relocation site must be identified prior to any works being undertaken. Details of post-translocation monitoring and proposed predator control. The Lizard Salvage and Mitigation Plan shall be certified in writing by the Waikato Regional Council prior to any vegetation clearance, earthworks or filling occurring at Fill Areas 2, 3 and 4.
23. The Bat Management Plan shall be implemented and compliant with best management practice for artificial roost management as outlined in: New Zealand Bat Recovery Group Advice Note – The Use of Artificial Bat Roosts. 18 October 2021.

The acoustic surveys shall be conducted in the appropriate season, that predator exclusion bands surrounding artificial roosts be inspected annually and adjusted as needed for 15 years, and the bat reserve shall be subject to appropriate legal protection in perpetuity.

24. In addition to conditions 20 and 21 above, the Consent Holder shall undertake all ecological compensation in accordance with the ecological compensation table, Schedule Two to this consent.

Ecological Mitigation Monitoring Report

25. On an annual basis, the Consent Holder shall prepare an Ecological Mitigation Monitoring Report which outlines the details of any ecological mitigation and associated monitoring works required under the Ecological Mitigation Plan, Lizard Salvage and Mitigation Plan, Bat Management Plan and

the Fish Management Plan which have been undertaken within the preceding 12 month period. The plan shall include, but will not be limited to, the following items:

- a) Details of any planting or plant maintenance works including the outcomes of any maintenance inspections of established plantings;
- b) Details and outcomes of any aquatic and terrestrial ecological monitoring;
- c) Details and outcomes of any plant or animal pest control works including any follow up monitoring of pests.

The monitoring report shall be prepared by a suitably qualified and experienced ecologist and shall be forwarded to the Waikato Regional Council by 31 May each year.

Covenant

26. Within 12 months of commencement of this resource consent, the consent holder the consent holder shall establish and register on the land title, a legal mechanism (herein referred to as a "covenant") containing appropriate requirements in order to legally protect in perpetuity the ecological mitigation/compensation areas to be restored as per the approved EMP, wetland compensation (condition 22) and Schedule Two of this Resource Consent. The covenant shall also set out that clearance of vegetation, grazing of stock and earthworks within the covenant area is prohibited.
27. The consent holder shall provide a draft covenant document to satisfy the requirements of condition 12 for the consideration and written approval of the Waikato Regional Council, acting in a technical certification capacity, and prior to the registration of the covenant on the property title.

Maatauranga Maaori

28. Within three months of the consent being granted the consent holder shall develop a Maatauranga Maaori Environmental Monitoring Plan (MMEMP). The MMEMP shall include but will not be limited to:
 - (a) Undertaking cultural monitoring during topsoil removal;
 - (b) Waahi Whanui Trust Input into the Closure and Rehabilitation plan;
 - (c) Involvement of the Waahi Whanui Trust in water quality monitoring;
 - (d) Restoration of Compensation Area;
 - (e) Waahi Whanui Trust input into the Dust Management Plan and air discharge monitoring;
 - (f) Waahi Whanui Trust input into the Ecological Management Plan.

The MMEMP shall be developed in consultation with the Waahi Whanui Trust and the final MMEMP provided to the Waahi Whanui Trust for comment at least 20 working days prior to submitting the MMEMP to the Waikato Regional Council.

29. The MMEMP shall be certified in writing by the Waikato Regional Council acting in a technical certification capacity and the consent holder shall undertake all activities authorised by this consent in accordance with the certified MMEMP.

30. Any changes proposed to the MMEMP shall be confirmed in writing by the consent holder following consultation with the Waikato Regional Council acting in a technical certification capacity, prior to the implementation of any changes proposed.

Advice Note: *Waikato Regional Council certification of the MMEMP is to ensure that the intent of Condition 28 has been met and that the content of the MMEMP is consistent with the condition requirements.*

Erosion and Sediment Control Plan

31. The consent holder shall provide the Waikato Regional Council with a revised "Erosion and Sediment Control Plan" (E&SCP) and any associated ancillary soil disturbance activities at least 10 working days prior to the proposed commencement of activities authorised by this consent. The objective of the E&SCP shall be to minimise sediment discharges from the site to the extent practicable.
32. The E&SCP shall as a minimum be based upon and incorporate those specific principles and practices which are appropriate for the activity authorised by this consent and contained within the Waikato Regional Council document titled "*Erosion and Sediment Control – Guidelines for Soil Disturbing Activities*" (Technical Report No. 2009/02 – dated January 2009), and shall include at least the following:
- (a) Details of all principles, procedures and practices that will be implemented to undertake erosion and sediment control to minimise the potential for sediment discharge from the site, including flocculation if required;
 - (b) The design criteria and dimensions of all key erosion and sediment control structures;
 - (c) A site plan of a suitable scale to identify:
 - i) The location of waterways;
 - ii) Any 'no go' and/or buffers areas to be maintained undisturbed adjacent to watercourses;
 - iii) Areas of cut and fill;
 - iv) All key erosion and sediment control structures;
 - v) The boundaries and area of catchment contributing to all stormwater impoundment structures;
 - vi) The locations of all specific discharge points to the environment; and
 - vii) Any other relevant site information.
 - (d) Construction timetable for the erosion and sediment control works;
 - (e) Timetable and nature of progressive site rehabilitation and re-vegetation proposed;
 - (f) Maintenance, monitoring and reporting procedures;
 - (g) Rainfall response and contingency measures including procedures to minimise adverse effects in the event of extreme rainfall events and/or failure of any key erosion and sediment control structures;
 - (h) Procedures and timing for review and/or amendments of the E&SCP; and
 - (i) Identification and contract details of personnel responsible for the operation and maintenance of all key erosion and sediment control structures.
33. The E&SCP shall be certified in writing by the Waikato Regional Council acting in a technical certification capacity prior to any works authorised by this consent commencing and the consent holder shall undertake all activities authorised by this consent in accordance with the certified E&SCP.
34. Any changes proposed to the E&SCP shall be confirmed in writing by the consent holder following consultation with the Waikato Regional Council acting in a technical certification capacity, prior to the implementation of any changes proposed.
35. All disturbed or cut vegetation, soil or debris shall be deposited or placed in a position where it will not enter any water body or cause diversion, damming or erosion of any waterway.

36. The consent holder shall ensure that, as far as practicable, all clean water run-off from stabilised surfaces including catchment areas above the site shall be diverted away from the exposed areas via a stabilised system to prevent erosion. The consent holder shall also ensure the outfall(s) of these systems are protected against erosion.
37. The consent holder shall ensure that all erosion and sediment control structures are inspected on a weekly basis and within 24 hours of each rainstorm event that is likely to impair the function or performance of the controls. A record shall be maintained of the date and time of inspections undertaken, any maintenance requirements identified, and of maintenance undertaken to all erosion and sediment control structures. Records associated with the maintenance of all erosion and sediment control structures shall be made available to the Waikato Regional Council at all reasonable times.
38. The consent holder shall, prior to filling commencing in each fill area, submit to the Waikato Regional Council "As Built Certification Statements" signed by an appropriately qualified and experienced professional certifying that erosion and sediment control structures have been constructed in accordance with the certified E&SCP. Certified controls shall include clean water diversion channels/bunds, sediment retention ponds and decanting earth bunds. The As Built Certification Statements shall be supplied to the Waikato Regional Council within 5 working days of the completion of the construction of those controls. Information contained in the certification statement shall include at least the following:
- a) Confirmation of contributing catchment areas;
 - b) The location, capacity and design of each structure;
 - c) Position of inlets and outlets;
 - d) Stability of structures;
 - e) Measures to control erosion; and
 - f) Any other relevant matter.

Advice Note:

An example template and the information required for the As Built Certification Statement can be found on the Waikato Regional Council website www.waikatoregion.govt.nz/earthworks.

Dust Management Plan

39. At least 10 working days prior to the commencement of activities under this resource consent, including earthworks and fill disposal, the consent holder shall submit to Waikato Regional Council, for approval in a technical certification capacity, an updated Dust Management Plan (DMP). The DMP shall be approved in writing by the Waikato Regional Council prior to the commencement of activities under this resource consent. Any changes to the DMP shall be reviewed and certified by the Waikato Regional Council acting in a technical certification capacity prior to the changes being made.
40. The maximum area of unstabilised exposed ground at the active fill site shall be no greater than 3 hectares at any one time. Minimising exposed areas will reduce dust discharges and erosion and sediment discharges.
41. All activities authorised by this consent shall ensure that dust emissions are kept to a practicable minimum so that there shall be no particulate matter as a result of the activities authorised by this resource consent that causes an objectionable or offensive effect beyond the boundary of the site. At least the following measures shall be implemented:
- (a) The use of water sprays to suppress dust from fill areas from access roads and from other disturbed land, on an as required basis;
 - (b) The use of dust stabilisation systems (water, water plus additives or mulch);
 - (c) The stabilisation of disturbed land which is currently not being worked;

- (d) The regrassing of completed surfaces;
 - (e) The maintenance of all access routes;
 - (f) The use of a truck wheel wash; and
 - (g) Keeping the total area of exposed soil to a practicable minimum at all times.
42. Should an emission of particulate matter occur that has an objectionable or offensive effect, the consent holder shall inform the Waikato Regional Council within 24 hours of the incident and provide a written report to the Waikato Regional Council within five days of being notified of the incident. Should the consent holder be informed by the Waikato Regional Council of such an emission, the consent holder shall provide a written report within 5 days. In both cases the report shall specify:
- (a) The cause(s) or likely cause(s) of the event and any factors that influenced its severity;
 - (b) The nature and timing of any measures implemented by the consent holder to avoid, remedy or mitigate any adverse effects; and the steps to be taken in future to prevent recurrence of similar events; and
 - (c) The steps planned to be taken to prevent reoccurrence of similar events.
43. PM₁₀ monitoring shall be undertaken, if required in writing by the Waikato Regional Council, after determining objectionable or offensive effects of particulate matter beyond the boundary.
- Advice Note:** *For the purpose of this resource consent, the Waikato Regional Council will consider an effect that is objectionable or offensive to have occurred if any appropriately experienced officer of the Waikato Regional Council deems it so after having regard to:*
- i) The frequency, intensity, duration, amount, effect and location of the suspended or particulate matter; and/or*
 - ii) receipt of complaints from neighbours or the public; or*
 - iii) relevant written advice or a report from an Environmental Health Officer of a territorial authority or health authority.*
44. In the event that monitoring of PM₁₀ is required, the consent holder shall ensure that the concentrations of suspended particulate in ambient air arising from authorised activities at or beyond the boundary of the site does not exceed 80 µg/m³ as a 24 hour average.
45. The consent holder shall record the following in a daily log:
- (a) Records of any PM₁₀ monitoring;
 - (b) Details on any dust control equipment malfunctions and any remedial actions taken;
 - (c) Details on any visible emission of dust and the source;
 - (d) Wind direction;
 - (e) The frequency of water cart usage and the volume of water applied;
 - (f) The volume of water used for dust suppression other than water cart usage;
 - (g) The date and signature of the person entering the information;
 - (h) Details of dust complaints received; and
 - (i) Actions taken in response to dust complaints received.

Records shall also be made available to the Waikato Regional Council within 5 working days upon request.

46. Earthworks and filling at Fill Area 3 and 4 shall cease when winds from the west and south-southwest exceeds a windspeed of 10 m/s.
47. The consent holder shall operate and maintain a meteorological station on the site to measure and record the air temperature, wind direction and wind velocity on a continuous basis (at no less than 10 minute intervals).

48. A recommendation on the location of the meteorological station shall be made by a suitably qualified and experienced practitioner to ensure that it is positioned in a suitably representative location with respect to the managed fill operation. The finalised location shall be approved by Waikato Regional Council.
49. A suitable anemometer or equivalent measurement device capable of measuring wind speeds at a resolution of no greater than 0.1 m/s and capable of measuring wind direction at a minimum wind speed of no greater than 0.1 m/s, shall be referenced to true north and located at least 6 metres above ground and where practicable, free of influence from trees and other buildings or structures.
50. The meteorological data shall be retained for the duration of the resource consent and data in excel or csv file format provided for any period to Waikato Regional Council within 48 hours of a request.
51. The anemometer shall be calibrated annually, with the documentation of the calibration retained and appended to the annual report and also provided within one week of a request from the Waikato Regional Council.

Annual Compliance Report

52. The consent holder shall provide to the Waikato Regional Council and to the Community Liaison Group an Annual Compliance Report, by 31 March, for each year that this consent is exercised. The Annual Compliance Report is to provide an assessment of the consent holder's compliance with the conditions of resource consents AUTH144475.01.01, AUTH144475.02.01, AUTH144475.03.01, AUTH144475.04.01, AUTH144475.05.01, AUTH144475.06.01 and AUTH144475.07.01 make any recommendations to address any identified non-compliances. The Annual Compliance report shall also address the following:
 - a) Laboratory results from compliance monitoring of soils received to site;
 - b) Laboratory results from monitoring of subsurface and surface water discharges from the site;
 - c) Details of any loads turned away;
 - d) Daily/Weekly Log Books of fill placement and volumes;
 - e) An assessment of the monitoring results against relevant criteria to ensure that the operation of the facility is not having a more than minor effect on the receiving environment;
 - f) Details of any actions undertaken to address any issues identified during monitoring or operation of the fill facility;
 - g) Details of any complaints received and any management of mitigation actions undertaken to address those complaints; and
 - h) Details of any revisions to the *Site and Fill Management Plan*, or any other documentation associated with the management of the site.
 - i) Any air quality monitoring records.
 - j) A copy of the most up to date and certified table of Fill Acceptance Criteria under AUTH144475.03.01/SFMP.
 - k) A copy of the current table of discharge water quality limits for each of the contaminants tested under AUTH144475.04.01/SAP.

Management Plan Review

53. The consent holder shall review all Management Plans associated with the site every 5 years that this consent is current. The review shall assess whether management practices are resulting in compliance with the conditions of these consents, and whether the objectives of the Management Plans are being met through the actions and methods undertaken. The review shall result in any amendments that are necessary to better achieve the objectives of the Management Plans

54. A copy of the review and any changes to the Management Plans as a result of that review shall be provided to Waikato Regional Council with the Annual Compliance Report for every fifth year.

Archaeological Accidental Discovery

55. In the event of any archaeological site or waahi tapu being discovered or disturbed while undertaking earthworks or ancillary activities, the activity shall cease immediately in the area of the discovery and the Waahi Whanui Trust, Heritage New Zealand Pohere Taonga and the Waikato Regional Council shall be notified within 24 hours. Works may recommence with the written approval of the Waikato Regional Council. Such approval shall be given after the Waikato Regional Council has considered:

- (a) Tangata Whenua interests and values;
- (b) The consent holder's interests;
- (c) Any Heritage New Zealand Pohere Taonga authorisations; and
- (d) Any archaeological or scientific evidence.

Bond

56. Prior to the placement of fill material authorised via AUTH144475.02.01 and AUTH144475.03.01 the consent holder shall provide and maintain in favour of the Waikato Regional Council a bond to enable:

- i. Rehabilitation (including contouring, drainage and revegetation) of filling areas and disturbed areas to a standard such that the activities and works authorised by this consent no longer require resource consent;
- ii. Operation and maintenance of treatment systems on the site to ensure that discharges meet the resource consent requirements while restoration on the site is being completed; and
- iii. Compliance with all the conditions of this consent and to enable any adverse effects on the environment resulting from the consent holder's activities and not authorised by resource consent to be avoided, remedied or mitigated.
- iv. The fill sites to be rehabilitated in accordance with the '*Technical Guidelines for Disposal to Land, Waste Management Institute New Zealand (WasteMINZ), August 2018*' cover and capping requirements for Class 3 landfill. The final fill site rehabilitation shall at least achieve the Minimum Recommended Final Cover Requirements for Class 3 Landfill, Table 5-8, WasteMINZ Guidelines. Class 3 landfills require an engineered capping system to minimise water ingress and provide separation between the managed fill material and end users. In the event that the WasteMINZ Guidelines are superseded, rehabilitation shall be in accordance with the respective most up to date technical publication.

57. The quantum of the bond shall be sufficient to cover:

- i. the estimated costs (including any contingency necessary) of the activities outlined in condition 56; and
- ii. any further sum which the Waikato Regional Council considers necessary for monitoring any adverse effect on the environment that may arise from the managed fill operation including monitoring anything which is done to avoid, remedy, or mitigate an adverse effect.

58. The bond shall be in a form approved by the Waikato Regional Council and shall, subject to these conditions, be on the terms and conditions required by the Waikato Regional Council.

59. Unless the bond is a cash bond, the performance of all the conditions of the bond shall be guaranteed by a guarantor acceptable to the Waikato Regional Council. The guarantor shall bind itself to pay for the carrying out and completion of any condition of the bond in the event of any

default of the consent holder, or any occurrence of any adverse environmental effect requiring remedy.

60. The amount of the bond shall be fixed within 12 months of commencement of this consent and every fifth anniversary thereafter by the Waikato Regional Council or more frequently if otherwise agreed between the consent holder and the Waikato Regional Council. The amount of the rehabilitation bond shall be advised in writing to the consent holder at least one month prior to the review date.
61. Should the consent holder not agree with the amount of the bond fixed by the Waikato Regional Council then the matter shall be referred to arbitration in accordance with the provisions of the Arbitration Act 1996. Arbitration shall be commenced by written notice by the consent holder to the Waikato Regional Council advising that the amount of the rehabilitation bond is disputed, such notice to be given by the consent holder within two weeks of notification of the amount of the rehabilitation bond. If the parties cannot agree upon an arbitrator within a week of receiving the notice from the consent holder, then an arbitrator shall be appointed by the Chief Executive Officer of the Institution of Professional Engineers of New Zealand. Such arbitrator shall give an award in writing within 30 days after his or her appointment, unless the consent holder and the Waikato Regional Council agree that time shall be extended. The parties shall bear their own costs in connection with the arbitration. In all other respects, the provisions of the Arbitration Act 1996 shall apply. Pending the outcome of that arbitration, the existing bond shall continue in force. That sum shall be adjusted in accordance with the arbitration determination.
62. If the decision of the arbitrator is not made available by the 30th day referred to above, then the amount of the bond shall be the sum fixed by the Waikato Regional Council, until such time as the arbitrator does make his/her decision. At that stage the new amount shall apply. The consent holder shall not exercise this consent if the variation of the existing bond or new bond is not provided in accordance with this condition.
63. If the amount of the bond to be provided by the consent holder is greater than the sum secured by the current bond, then within one month of the consent holder being given written notice of the new amount to be secured by the bond, the consent holder and the guarantor shall execute and lodge with the Waikato Regional Council a variation of the existing bond or a new bond for the amount fixed on review by the Waikato Regional Council. Activities authorised by the consent shall not be undertaken if the variation of the existing bond or new bond is not provided in accordance with this condition.

National Grid Electricity Transmission Lines

64. All machinery and mobile plant operated in association with the works shall maintain a minimum clearance distance of 4 metres from the conductors (wires) of the HAMMER-B National Grid transmission lines at all times.

Advice Note: It is the consent holder's responsibility to ensure that all land use activities, including the construction of new buildings/structures, earthworks, fences, any operation of mobile plant and/or persons working near exposed line parts shall comply with the New Zealand Electrical Code of Practice for Electrical Safe Distances (NZECP 34:2001) or any subsequent revision of the code.

Review

65. The Waikato Regional Council may in 2025 and every two years thereafter, serve notice on the consent holder under section 128(1) of the Resource Management Act 1991, of its intention to review the conditions of this resource consent for the following purposes:

- (a) To review the effectiveness of the conditions of this resource consent in avoiding or mitigation any adverse effects on the environment from the exercise of this resource consent and if necessary to avoid, remedy or mitigate such effects by way of further or amended conditions; or
- (b) If necessary and appropriate, to require the holder this resource consent to adopt the best practicable option to remove or reduce adverse effects on the surrounding environment due to the placement of placement of managed fill and any subsequent contaminated stormwater discharges; or
- (c) To review the adequacy of and the necessity for monitoring undertaken by the consent holder; or
- (d) To take account of any changes to the Waikato Regional Plans or Policies.

Administration

66. The consent holder shall pay the Waikato Regional Council any administrative charge fixed in with section 36 of the Resource Management Act 1991, or any charge prescribed in accordance with regulations made under section 360 of the Resource Management Act 1991.

Schedule Two – Ecological Compensation

The ecological compensation table below is outdated and only included here as an example of format. It is recommended that an updated Ecological Compensation table prepared and added here as Schedule Two.

Mitigation action	Compensation for	Timeframe	Notes
Fencing around wetland in CA4 gully and extension to CA4	Loss of modified wetland habitat in Fill Area 3	Within 1 year of consent being granted	Stream habitat and riparian vegetation upstream of the wetlands will also be protected
Pest plant control in wetland in CA4 gully and extension to CA4	Loss of modified wetland habitat in Fill Area 3	6 years from date of consent, as required. Refer to EMP for details.	Pest plant control will be extended upstream of the wetland to encompass the headwaters of the two small watercourses that feed the wetland system
Pest animal control in wetland in CA4 gully and extension to CA4	To protect indigenous fauna and revegetation efforts at the proposed compensation site from pest animals (possums, rats, rabbits, pukekos, mustelid).	6 years from date of consent, then reevaluated and ongoing as necessary. Possums/rats: Four pulses of control per year. Mustelid: DOC200s (monthly)	
Enhancement planting in wetland in the CA4 gully and extension to CA4	Loss of modified wetland habitat in Fill Area 3	Planting to occur in Year 2 from date of consent. plantings monitored with replacement planting as necessary over five years or until canopy closure is achieved, whichever is longer.	
Buffer planting in wetland in the CA4 gully and extension to CA4	Loss of modified wetland habitat in Fill Area 3	Planting to occur in Year 2 from date of consent and plantings monitored with replacement planting as necessary over five years or until canopy closure is achieved, whichever is longer.	Planting will be extended upstream of the wetland to provide a minimum 10 metre buffer to the two small watercourses that feed the wetland See Planting Areas 1-10 in EMP

Note: CA4 refers to 'Compensation Area 4'

Note: Refer Programme of Works in Section 10 of EMP

Locality of Ecological Compensation Areas



SCHEDULE THREE – ACCEPTABLE AND PROHIBITED WASTES

ACCEPTABLE WASTES	
1. Cleanfill Material Definition	
Material that when buried will have no adverse effect on people or the environment. Cleanfill material includes virgin natural materials such as clay, soil and rock, and other inert materials such as concrete or brick that are free of: <ul style="list-style-type: none"> • combustible, putrescible, degradable or leachable components • hazardous substances • products or materials derived from hazardous waste treatment, hazardous waste stabilisation or hazardous waste disposal practices. • materials that may present a risk to human or animal health such as medical and veterinary waste, asbestos or radioactive substances liquid waste. 	
2. Construction & Demolition Fill	
Construction & Demolition fill as defined and listed as acceptable materials in Section 4.2 of the Clean fill Guidelines. The material will include soil, rock, concrete, bricks, and inert C&D material. Inert C&D will mostly include glass and rock fibres and less than 5% timber. Soil and C&D can contain minor amounts of electrical wiring, plastics, and plasterboard as an acceptable material (less than 0.5% of the waste matrix).	
Material	Discussion
Bricks & Masonry Blocks	Inert – will undergo no degradation.
Ceramics	Inert.
Concrete – un-reinforced	Inert material.
Concrete –reinforced	Including exposed reinforcing rods of less than 1 meter in length
Fibre cement building products	Inert material comprising cellulose fibre, Portland cement and sand. Care will be taken to ensure that the product does not contain asbestos, which is unacceptable.
Glass	Inert, and poses little threat to the environment. May pose a safety risk if placed near the surface in public areas, or if later excavated. The safety risk on excavation should become immediately apparent, so glass is considered acceptable provided it is not placed immediately adjacent to the finished surface.
Road sub-base	Inert.
Soils, rock, gravel, sand, clay, etc.	Acceptable if free of contamination. Vetting procedures will be implemented through the Site and Fill Management Plan
Tiles (clay, concrete or ceramic)	Inert.
3. Asbestos in soil and asbestos contaminated material (ACM).	
The demolition material will include ACM such as: <ul style="list-style-type: none"> • asbestos-cement sheet cladding, roofing, and drainage pipes 	

- backing material for floor tiles and vinyl sheets
- insulation board for thermal protection (e.g., around fireplaces)
- textured ceilings and sprayed-on wall surfaces.
- lagging for insulation around pipes, heaters, and hot water cylinders
- asbestos-cement sheet cladding, roofing, and drainage pipes
- backing material for floor tiles and vinyl sheets
- insulation board for thermal protection

All asbestos soils and ACM shall be accepted, tested, treated, and disposed as outlined in the approved Asbestos Fill Management Plan.

4. Acid Sulphate Soils and Peat Soils

Naturally occurring material. Peat forms from the build-up of partially rotted plant material in wet environments

Acid sulphate soils and peat soils shall only be received at the site for disposal subject to adequate evidence and WRC written approval that they have been lime stabilised

-

7. Managed Fill

Material that meets the Waste Acceptance Criteria outlined in Table 1 of AUTH144475.03.01.

All materials shall be accepted, tested, treated, and disposed as outlined in the approved Site and Fill Management Plan.

PROHIBITED WASTES

- Any material that exceeds the accepted criteria listed in approved Waste Acceptance Criteria.
- No chipboard, will be accepted as part of the Construction & Demolition fill
- No liquid wastes.
- No green waste – (Vegetation, bark and wood chips) any material that is compostable / biodegradable that could cause leachate.
- No material from gas works will be accepted.
- Containers, sealed drums, and gas cylinders
- Bulk liquids
- Tyres
- Medical and Veterinary Waste
- Coal Ash Waste
- Lead acid batteries (lead acid batteries can be recycled in New Zealand).
- Used oil.
- Explosive, flammable, oxidising or corrosive substances - as defined under the HSNO Act.
- PCB wastes.
- Persistent Organic Pollutants wastes (as defined by the Stockholm Agreement).
- Viscous materials-liquids/tars/paints and painted material.
- Drums or containers containing hazardous chemicals (including agrichemicals, solvents, petroleum compounds or toxic chemicals (as defined under the HSNO Act)).
- Household Hazardous Waste.
- Municipal solid waste and domestic refuse.
- Paper, cardboard, and fabrics
- Electrical components, cabling, and insulation
- Biosolids from municipal or industrial wastewater treatment plants
- Marine Sediments
- acid sulphate soils (ASS) and peat soils which have not been lime stabilised
- Radioactive substances
- Bulk liquids and liquid waste [noting that bulk liquids is already in that table but extending it to including liquid waste]
- No animal carcasses or animal waste
- No motor vehicle bodies, engines or parts
- Tunnel boring machine spoil or drilling additives

SCHEDULE FOUR – WATER QUALITY PARAMETERS

(The tables in Schedule Four below have been copied from the applicant's draft conditions. Recommendations or changes highlighted with notes. Schedule Four requires further discussion between the technical experts)

Water quality parameters and proposed trigger values for stormwater discharge at Sampling location DS1, DS3 and DS4 and Fill Area 2 and Fill Area 4.

Parameter	Proposed Trigger values (mg/L)	Source and Rationale
Dissolved Aluminium (0.22 µm filter)	0.980 ¹	US EPA CMC. Intermittent discharge and Colloidal aluminosilicates may give high values
Dissolved Arsenic	0.01 ²	MoH (2018) Drinking Water Standards
Dissolved Boron	0.940 ³	ANZG (2018) 95% Guidelines. High Background values
Dissolved Cadmium	0.0008 ¹	ANZG (2018) 80% Guidelines. Allows for dilution
Dissolved Chromium (based on Cr(III))	0.57 ¹	US EPA CMC. Intermittent discharge
Dissolved Copper	0.0251 ⁵	ANZG (2018) 80% Guidelines. Allows for dilution
Dissolved Lead	0.0056 ⁴	ANZG (2018) 90% Guidelines. Allows for dilution and protection of drinking water.
Dissolved Nickel	0.013 ⁴	ANZG (2018) 90% Guidelines and Protection of Drinking water
Dissolved Thallium	0.00003 ⁴	ANZG (2018) 95% Guidelines. High Background values
Dissolved Zinc	0.031	Confirmed as being non-toxic by Whole Effluent Toxicity testing of the stream water collected from sampling location.
Total petroleum hydrocarbons (TPH)	15 ⁶	MfE (1989) Petroleum Guidelines. To avoid visible sheens
pH	>5.5 (6.0 for storage tank Fill 3 underdrain) pH units	
<p>Note: Dissolved aluminium shall be measured using 0.22 µm ultra-filtration method to remove colloidal aluminium from clay particles.</p> <ol style="list-style-type: none"> 1. US EPA CMC (for aluminium the lowest CMC has been used with a water hardness of 100 mg/L, DOC equal 1 mg/L and pH 7) 2. MoH (2018) Drinking water standards 3. ANZG (2018) 95% ecosystem protection guideline value 4. ANZG (2018) 90% ecosystem protection guideline value 5. ANZG (2018) 80% ecosystem protection 6. Based upon MfE (1989) Environmental Guidelines for Water Discharges from Petroleum Industry Sites in New Zealand recommendation of 15 mg/L. 		

With regards to the second table under Schedule 4 – I would recommend that the caption is amended as following and also the reference to chromium VI and the 0.006 trigger needs to be replaced with EHS's recommendation of chromium III and 0.0033 as per the cut and paste below this from EHS's SAP document. I also recommend that the ANZ 95% value for aluminium of 0.055 mg/L is applied instead of the 90% protection value.

Water quality parameters and proposed trigger values for downstream receiving water quality at DS2 and DS5

Parameter	Proposed Trigger values (mg/L)	Source and Rationale
Dissolved Aluminium	0.080 ¹	ANZG (2018) 90% Guidelines. Background may be elevated during storm conditions.
Dissolved Arsenic	0.024 ²	ANZG (2018) 95% Guidelines.
Dissolved Boron	0.940 ²	ANZG (2018) 95% Guidelines.
Dissolved Cadmium	0.0002 ²	ANZG (2018) 95% Guidelines.
Dissolved Chromium (as Chromium VI)	0.006 ¹	ANZG (2018) 90% Guidelines. Background may be elevated.
Dissolved Copper	0.0014 ²	ANZG (2018) 95% Guidelines.
Dissolved Lead	0.0034 ²	ANZG (2018) 95% Guidelines.
Dissolved Nickel	0.011 ²	ANZG (2018) 95% Guidelines.
Dissolved Thallium	0.00003 ²	ANZG (2018) 95% Guidelines.
Total petroleum hydrocarbons (TPH)	5 ⁴	33% of the MfE (1989) Petroleum Guidelines. To avoid visible sheens on the surface of the water.

Dissolved Chromium (as Chromium III)	0.0033	ANZG (2018) Default Guideline Value
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For the third table under Schedule 4 – the copper, lead and zinc criteria for level 2 are incorrect and inconsistent with what was proposed in EHS's SAP document. The criteria should be 1.25 for copper, 0.25 for lead and 1.55 for zinc.

In addition to this the table also needs to refer to the acceptable pH range which should be 6.0 to 9.0 pH units under both Level 1 and Level 2 criteria.

Proposed trigger values for discharging Underdrain Storage Tank

Parameter	Proposed Trigger values (mg/L)	
	Level 1 Criteria	Level 2
Total Boron	1.0	5.0
Total Copper	0.5	1.5
Total Lead	0.1	0.3
Total Zinc	0.6	1.8

Note:
mg/L = milligram per litre



WAIKATO DISTRICT COUNCIL

S42A Report

Open Meeting

To	Regulatory Subcommittee
Prepared By	Julia Masters – Consultant
Date	14 November 2022
Approved By	Wade Hill – Consents Team Leader
Application	LUC0488/22
Applicant	Gleeson Managed Fill Limited

EXECUTIVE SUMMARY

This report has been prepared pursuant to section 42A of the Resource Management Act 1991 (The Act) and provides an assessment of the proposal in accordance with the relevant matters specified in the Act. This report relates to an application to:

- Establish and operate a managed fill and overburden disposal activity that imports material to deposit within identified gullies (Fill Areas 2-4) located north of an existing quarry within the same site.
- Undertake soil disturbance of a piece of land (within Fill Area 3) as per the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health.

The application is a Discretionary Activity under both the Operative Waikato District Plan-(ODP) and the Proposed Waikato District Plan – Appeals Version (PDP).

The key elements of the proposal are as follows:

- Import material to deposit (at a rate of up to 300,000m³ of fill per annum) within three identified gullies (Fill Areas 2, 3 and 4) located north of the existing quarry as well as accepting overburden from the quarrying activities on site. Combined the three fill areas have an estimated total capacity of 2,009,200m³.
- Disturb soils within Fill Area 3 which are identified as contaminated as per the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health
- Removal of all vegetation and topsoil within each Fill Area to expose a competent subgrade
- Reclamation of existing ephemeral and intermitted watercourses and artificial wetland areas and installation of drainage and erosion and sediment control measures;
- Construction (and maintenance) of sediment retention ponds
- Importation of managed construction and demolition material which may include asbestos containing soil and material, peat, marine sediment, and acid sulphate soils.
- Construction of necessary supporting infrastructure such as site office, parking/turning areas and inspection platforms.
- Formation and upgrades to existing internal access roads to provide stable and operational access to all Fill Areas.

- Generation of traffic movements associated with the importation of fill of up to 24 additional vehicle movements per day
- Hours of operation for fill activities - 6:00am to 7:00pm Monday to Friday and 6:00am to 2:00pm Saturday.
- Hours of operation for truck movements to the site are:
 - 1 October – 30 April

Monday – Friday (inclusive):	5am to 8pm
Saturday:	6am to 3pm
 - 1 May to 30 September

Monday to Friday (inclusive):	5am to 6pm
Saturday:	6am to 3pm
- Staged ecological enhancement within a compensation gully west of the subject site.
- Rehabilitation of the land on completion of each fill area with forestry, with natural overland flow paths formed to match the completed contours.”

The application includes the following technical assessments relevant to the consents required from Waikato District Council:

- Traffic impact assessment
- Noise assessment
- Landscape and visual assessment
- Air quality assessment and dust management plan
- Ecological impact assessment and other ecological reports including an ecological management plan
- Geotechnical assessments
- Detailed site investigation (contaminated land) and contaminated site management plan
- Erosion and sediment control plans
- Site and fill management plan

The key concerns raised through the submission process relate to the following matters:

- Contamination of water (groundwater and stormwater)
- Contaminants in fill
- Transport effects
- Community
- Ecological effects
- Noise
- Vibration
- Air/Dust
- Odour
- Stormwater/erosion and sediment control
- Monitoring and compliance
- Visual/Landscape
- Land stability/geotechnical
- Waikato River Vision
- Recreation
- Natural hazards and climate change
- Health and safety
- Part 2 the Act
- Consultation

- Impact to National Grid
- Cultural Effects
- Applicant/Trust in Applicant
- Origin of waste

After reviewing the application documentation, further information received, the submissions and the technical reviews undertaken, it is my opinion there is potential for adverse effects to arise in relation to cultural values noting that submissions have identified that the proposal will not enhance the mana and mauri of water, land, fauna, flora and people. I also note that the lack of a site wide stormwater management plan has been identified as a gap within the information and therefore there is potential for unacceptable stormwater effects to occur.

The remaining actual and potential adverse effects of allowing the activity can be adequately avoided, remedied or mitigated via the mitigation measures proposed in the application, the technical reviews and subject to the imposition of the suggested conditions so that the effects on the environment will be acceptable. This is on the basis that the applicant confirms the following points:

- Clarification over the directional split of trucks arriving to and from the site, noting that the assessments have been undertaken on the basis of a 50/50 split.
- The extent of the pine and eucalyptus plantations necessary to screen the fill sites from view be provided in a plan
- Details of additional compensation works to offset the effects of indigenous vegetation and habitat loss within wetland areas is provided. Without the additional mitigation measures, the proposal may give rise to adverse ecological effects.
- The need for additional consents required for removal of indigenous vegetation undertaken without obtaining resource consent
- Clarification over the staging of works in relation to contaminated soils within Fill Area 3, noting that stockpiling may be unavoidable should a fill area not be ready to receive material.

It is also my opinion that overall, this proposal is not consistent with the relevant objectives and policies of both the Operative District Plan and Proposed District Plan which recognise and provide for tangata whenua's relationship with their taonga and the need to implement Te Ture Whaimana. Furthermore, due to the lack of a stormwater management plan, there is potential for unacceptable stormwater effects to occur. Thus, the proposal is not consistent with the objectives and policies which seek that adequate infrastructure is provided.

After having considered the application in accordance with those matters required under s104, I find that the purpose of the Act is best served by refusal this application.

Applicant:	Gleeson Managed Fill Limited
Property Address:	310 Riverview Road HUNTLY
Legal Description:	Fill Areas 2 – 4: Lot 9 DP 1278 and Pt Lot 10 DP 1278 (RT SA149/243)

	<p>DP 25272 (RT SA656/223) Pt Lot 9-10 DP 1278 (RT SA922/109)</p> <p>Compensation Site: Lot 1 DPS 75436 (RT SA57C/382)</p> <p>Access/Quarry Site: Lot 1 DPS 4285 (RT SA95C/651) Pt Lot 11 DP 1278 (RT SA200/118) Pt Lot 11 DP 1278 (RT SA200/119)</p>
District Plan:	<p>Operative District Plan - Waikato Section 2013 Proposed District Plan - Appeals Version 2022</p>
Activity Status:	<p>Operative District Plan: Discretionary Proposed District Plan: Discretionary National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health: Controlled Activity</p>
Zoning:	<p>Operative District Plan: Rural Zone Proposed District Plan: General Rural Zone</p>
Policy Area:	<p><u>Operative District Plan:</u> Aggregate Extraction Policy Area (part of Fill Area 2 only) Transmission Lines Landscape Policy Area (along site frontage) Waikato River Catchment Aggregate Resource Area (on wider site)</p> <p><u>Proposed District Plan:</u> National Grid Waikato River Catchment Aggregate Extraction Area (Fill Area 2 only) Aggregate Resource Area (on wider site) Significant Natural Area (outside of Fill Areas) Outstanding Natural Landscape Area (along site frontage) Flood Plain Management Area (north east corner) High Risk Flood Area (north east corner) Area of significance to Maaori (north east corner)</p>
Proposal:	<p>To establish and operate a managed fill and overburden disposal activity that imports material to deposit within identified gullies (Fill Areas 2 - 4) located north of an existing quarry within the same site.</p> <p>To undertake soil disturbance of a piece of land (within Fill Area 3) as per the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health</p>

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APPENDIX I	Ecological Review - Papawera Geological Consulting
APPENDIX J	Geotechnical Assessment Review - Baseline Geotechnical
APPENDIX K	Contaminated Soil Assessment Review - Alan Parkes (Waikato District Council)
APPENDIX L	Land Development Engineer Report – Beca
APPENDIX M	Suggested Consent Conditions

1.0 INTRODUCTION

Pursuant to section 88 of the Resource Management Act 1991 (the Act), Paua Planning (the Agent) has applied on behalf of Gleeson Managed Fill Ltd (the Applicant) for land use consent to establish and operate a managed fill and overburden disposal activity that imports material to deposit within three identified gullies (Fill Areas 2, 3 and 4) located north of the existing quarry as well as accepting overburden from the quarrying activities on site. Combined the three fill areas have an estimated total capacity of 2,009,200m³.

1.1 Proposal

The application was lodged on 14 April 2022. The application documentation is substantial and comprises a number of supporting technical reports, plans and illustrations. A complete list of this documentation is provided in **Appendix A**. This documentation is referred to in this report, where relevant, to assist with the description of the site and surrounding features and proposed works and assessment of effects.

The fill operation is proposed to proceed in stages, commencing with Fill Area 2, progressing to Fill Areas 3 then 4. Figure 1 identifies the location of the fill sites and Table 1 below outlines the area and projected volume of each of the fill areas:

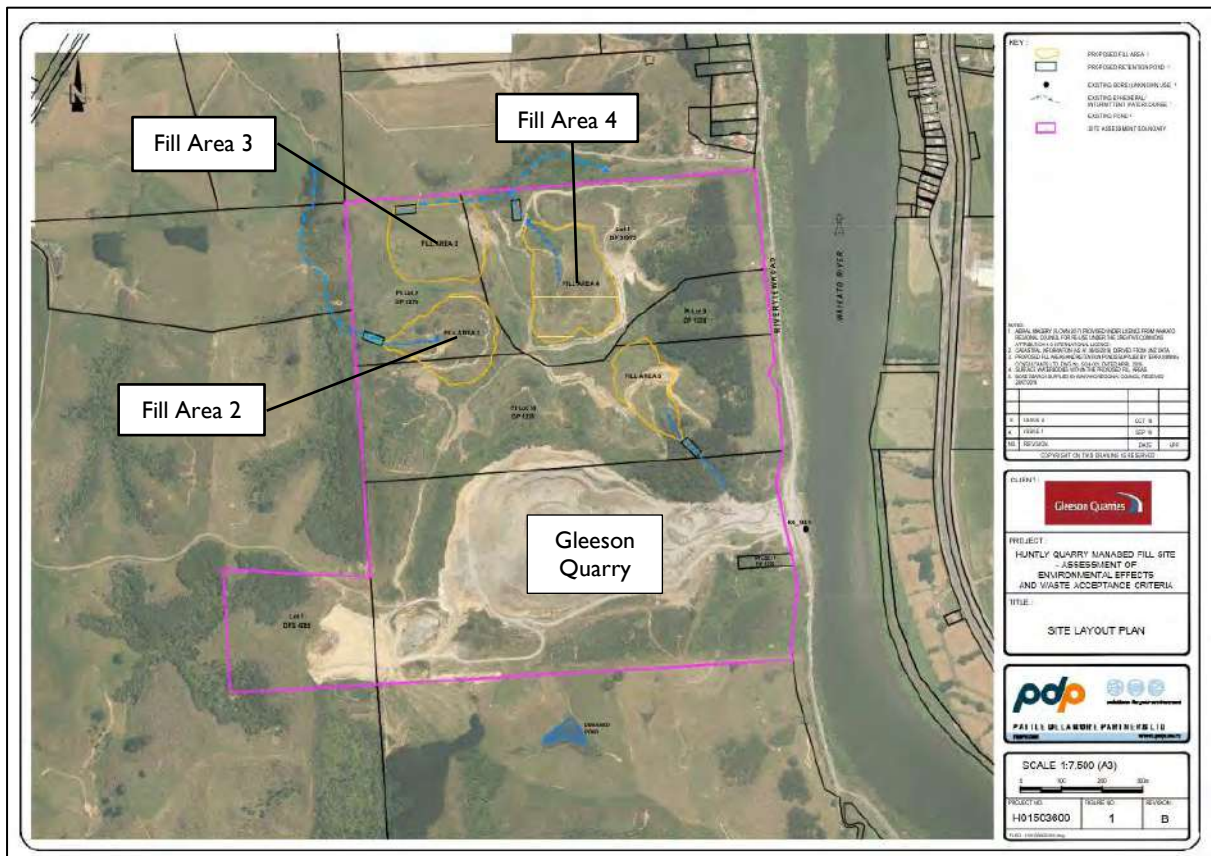


Figure 1: Fill Areas 2, 3 and 4

Table 1: Fill Areas and Volume

Fill ID	Fill Area (hectares)	Projected Fill Volume (m ³)	Fill Material
Fill Area 2	3.8	632,600	Managed fill with asbestos containing material, cleanfill and overburden
Fill Area 3	4.2	576,600	
Fill Area 4	5.1	800,000	
TOTAL	13.1	2,009,200	

Section 8.1 of the Assessment of Environmental Effects (AEE) states that each stage involves:

- *“The removal of all vegetation and topsoil to expose a competent subgrade; and*
- *Reclamation of existing ephemeral and intermitted watercourses and artificial wetland areas and installation of drainage and recommended erosion and sediment control measures; and*
- *Construction (and maintenance) of sediment retention ponds at the base of each Fill Area with a water holding capacity of between 1300m³ and 1563m³ to retain and treat site runoff.*
- *Deposition of imported managed fill in accordance with geotechnical engineering recommendations with maximum deposits of 300,000m³ per annum.*
- *Importation of managed construction & demolition material which may include asbestos containing soil and material, peat, marine sediment, and acid sulphate soils.*
- *Restriction of exposed surfaces to a maximum of 3.0ha at any one time.*
- *Stabilisation of each gully in accordance with geotechnical recommendations before opening the next Fill Area for operation, with site rehabilitation occurring with 6 months of each Fill Area being completed and stabilised.*
- *Washing out of trucks within an identified and contained wash area located centrally to Fill Areas 2, 3, and 4 prior to trucks being loaded with aggregate from the operational quarry.*
- *Construction of necessary supporting infrastructure such as site office, parking/turning areas and inspection platforms.*
- *Formation and upgrades to existing internal access roads to provide stable and operational access to all Fill Areas.*
- *Discharge of treated (clean) water from sedimentation ponds into ephemeral streams which eventually discharge to the Puketirini Lake to the north (Fill Area 2) or the Waikato River to the east (Fill Areas 3 and 4).*
- *Generation of traffic movements associated with the importation of fill of up to 24 additional vehicle movements per day (over and above movements approved under the Gleeson Quarry land-use consent).*
- *Staged ecological enhancement of a 3.9ha compensation gully west of the subject site.*
- *Rehabilitation of the land on completion of each fill area with forestry, with natural overland flow paths formed to match the completed contours.”*

As noted, the site is located north of the operational Gleeson Quarry (consented as per LUC0035/11.05). The quarry operations which involve the removal of overburden, extraction of rock, crushing of rock, and sales, will remain the same. It is estimated that there is 674,940m³ of overburden that will need to be stripped and disposed of. A dedicated volume of 182,600m³ will be placed in Fill Area 5 (consented as per LUC0176/20) and the balance of 492,340m³ of overburden is proposed to be placed in the Managed Fill Areas 2 to 4 or to be

exported from site.

In addition to overburden from the quarry, the type of managed fill material to be imported to site includes construction and demolition fill. This fill material is defined and listed as acceptable in Section 4.2 of the Ministry for the Environment Cleanfill Guidelines with accepted low levels of contaminants to include asbestos, soils containing acid sulphate and marine sediment. Typically, the fill will contain soil, rock, concrete, bricks, and glass, with less than 5% timber. Peat, a naturally occurring material is also to be accepted. The applicant has provided within their proposed conditions, a table which outlines the acceptable material (see Schedule Three) in accordance with the guideline identified above.

Prohibited wastes are also listed in Schedule Three and include any material that exceed the criteria in the Waste Acceptance Criteria agreed with Council. All green waste, tyres, bulk liquids, batteries, hazardous waste, coal ash or domestic/municipal waste are listed as prohibited.

Trucks will either be arriving and depositing fill directly into the open fill area or within a designated area from where the fill material (e.g., marine sediments) will first be managed and then be moved by machinery to the relevant area of the fill. Placed fill will be compacted by track rolling, the movement of site machinery/trucks etc. or by compactor if required.

A range of erosion and sediment controls are proposed for the works to control stormwater runoff and potential erosion/sediment discharge. In particular, filling will be staged to minimise the exposed areas within the overall fill site at any one time. Areas will remain undisturbed if possible, and the open area staging will be managed by progressive stabilisation of bare surfaces (topsoiled and grassed) on an ongoing basis as filling is completed. A maximum area of 3ha will be exposed at any one time. Straw/hay mulch, fabric or similar will be applied for temporary stabilisation as required.

Work areas will vary depending on matters such as the type of material received, the season and the state of filling on the overall site. Some areas may be opened and closed several times during the life of that Fill Area, and both temporary and permanent stabilisation measures will therefore be used. Geotechnical assessments have been undertaken for the works to establish the suitability and stability of the proposed fill areas. A series of recommendations are made which are proposed to be implemented alongside annual inspection, testing and monitoring.

Works are proposed to continue throughout the year i.e., no winter closures are proposed. A single fill area will be operational at any one time. Once Fill Area 2 (or 3) is half full, preparatory works on the next gully will begin to allow for continuous filling. Each fill area will be serviced by a Sediment Retention Pond sized according to the catchment of each fill area.

A Site and Fill Management Plan (SFMP) is provided which seeks to manage operations. This includes details on the proposed procedures and standards to show how compliance will be achieved with the relevant conditions of resource consents. It has been prepared in general accordance with the MfE and WasteMINZ guidelines. The SFMP includes the following:

- Filling operations (including hours of operations, staging, access etc.)
- Erosion and sediment management
- Contaminated soil management
- Noise management
- Traffic Management

- Dust Management
- Acceptance of fill
- Reporting and recording etc.

Fill is to be transported primarily by the applicant's own trucking business (Gleeson & Cox Ltd). At present, these trucks arrive at the quarry empty and leave full with a load from the quarry. It is proposed that instead, the majority of these trucks will carry fill to the site, therefore entering full and leaving full. In addition to this, up 12 trucks per day are anticipated to deliver fill to the site from approved subcontractors. Table 2 below summarises the anticipated truck movements.

Table 2: Anticipated Truck Movements

	Quarry Extraction Rate (tonnes per annum)	Maximum Tonnes per day exported from GQ	Capacity of most trucks (tonnes)	No. of Opening Days	No. of Trucks per day	No. of truck movements per day
Original TIA assumptions in Quarry consent	1,800,000	6,546	26	275	252	504
Updated assumptions (quarry)	1,800,000	6,522 ¹	28	276 ²	233	466
Additional assumptions under proposed managed fill application	1,800,000 + 300,000m ³ (imported fill)	6,522 + 1,087m ³ (imported fill)	28	276	233 + 60	466 + 120 ³
Breakdown of 60 additional trucks per day:	Existing Gleeson trucks:			48		96
	Other contractors:			12		24
TOTALS				233 + 12 = 245		466 + 24 = 490
Notes:						
1. Tonnes of aggregate exported per day has lessened, as truck capacity has been increased						
2. Includes 52 Saturdays which are half days - statutory days are not included						
3. An assumption has been made 80 percent of the trucks carrying managed fill will be owned by Gleeson and Cox whilst the remaining 20% will be owned and operated by other organisations (12 trucks). Therefore, it is anticipated that all 60 trucks will be laden when delivering fill however not all the third-party contractors will back load with aggregate, whilst all the Gleeson and Cox trucks will be expected to carry a backload.						

The additional truck trips per day to utilise the managed fill site is likely to add in the order of two additional trips per hour onto the local road network. Trucks will access the site via the existing single entry and exit access to Riverview Road. The current internal haul roads (associated with quarry activities and previous farm/forestry activities) will be upgraded for heavy vehicles to access the various Fill Areas. They will have a width of 15m to allow trucks to pass one another. The earthworks necessary to form these roads is additional to the volumes outlined in Table 1 above. Once trucks have tipped material into the Fill Area, the trucks will be washed/sprayed at the fill area. The operation will not be open to the public, the gate will be locked outside working hours and no unauthorised dumping will be permitted.

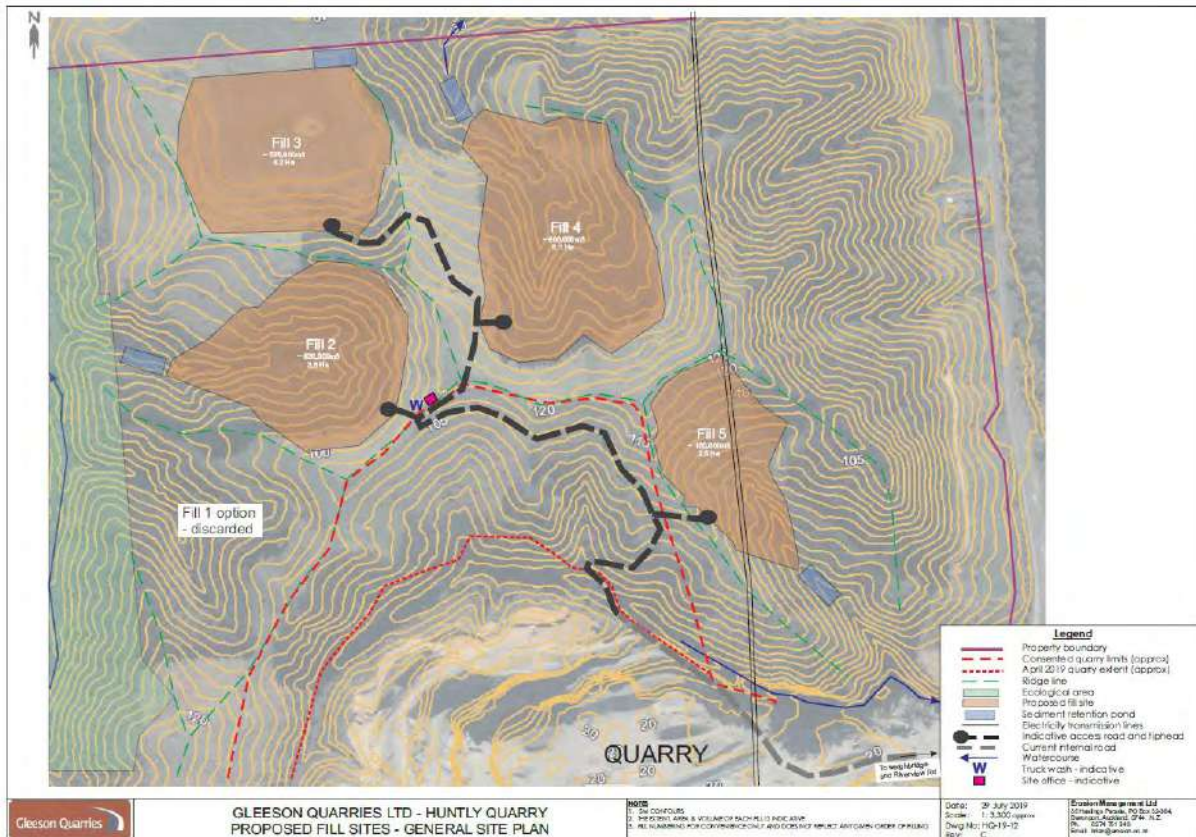


Figure 2: Fill Areas and Internal Roads

The following traffic movements will occur in association with the fill activity:

- Trucks utilising haul roads to access open Fill Site.
- Trucks manoeuvring at toe of Fill Site to dump fill.
- Machinery within Fill Area spreading dumped fill.
- Trucks within Fill Area re-positioning dumped fill.

The following hours of operation are proposed for all managed fill related activities:

- Monday to Friday (inclusive) 6am to 7pm
- Saturday 6am to 2pm
- No managed fill works shall be carried out on a Sunday or Public Holiday.

It is noted that these hours have been amended since lodgement of the application and differ to those set out in the original AEE. In addition to this, the following hours of operation related to truck movements to and from the site entrance are proposed:

1 October – 30 April

- Monday – Friday (inclusive): 5am to 8pm
- Saturday: 6am to 3pm

1 May to 30 September

- Monday to Friday (inclusive): 5am to 6pm
- Saturday: 6am to 3pm

These hours are consistent with the hours of operation related to truck movements for the quarry as set out in LUC0035/11.05. The applicant proposes that there be a maximum of 6

trucks (12 movements) between 5am and 6am.

The nature of the fill activity is such that noise will be generated by machinery including trucks, a bulldozer, excavator, grader, watercart and compactor. The noise generated by the activity has been assessed as being able to comply with the following noise limits (as outlined in the Proposed District Plan – Decision Version) at the notional boundary of any other site:

- 50dB LAeq, 7am to 7pm every day;
- 45dB LAeq, 7pm to 10pm every day;
- 40dB LAeq and 65dB LAmax, 10pm to 7am the following day.

Site investigations have identified that Fill Area 3 is a “piece of land” as per the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health (NESCS) as the soil contains contaminants that are above background levels. Disturbance of the soil within Fill Area 3 is a necessary part of the proposed activity, therefore the applicant proposes to undertake works in this fill area in accordance with a Contaminated Site Management Plan.

Vegetation clearance will be necessary within the fill areas and for the construction of associated infrastructure such as the sediment retention ponds. As a result a number of ecological assessments are provided with the application. The vegetation types are described in the application as consisting predominantly of pasture, gorse dominated scrub and with some native broadleaved scrub, wetland vegetation and broadleaf forest. Furthermore, wetlands are present within fill areas 2 and 4, although these have been classified as artificial in terms of the National Environmental Standard for Freshwater (NESFW).

Removal of vegetation and the wetlands, and as a consequence of the activity in general will have an impact on the habitat of a range of fauna including native lizards, a range of native birds and bats. The applicant therefore proposes to undertake compensation works. These include fencing, pest and weed control, and planting at “compensation area 4” which is located on the site to the west of the fill areas as identified in Figure 3 below. This will occur within 3,600m² of wetland and 730m length of stream, with approximately 3.3ha of habitat to be protected. The proposed programme of works outlines that within the first year, stock proof fences will be built, and pest plant and animal control will be undertaken, along with site preparation. Within year two planting (in July and August) will be undertaken along with further pest plant and animal control. The programme then provides for follow up pest plant and animal control as required and monitoring of planting.

The applicant has also prepared a Bat Management Plan in relation to the loss of mature trees within Fill Area 4. It is understood that this Bat Management Plan was prepared in relation to Fill Areas 4 and 5, with the latter consented at an earlier date.

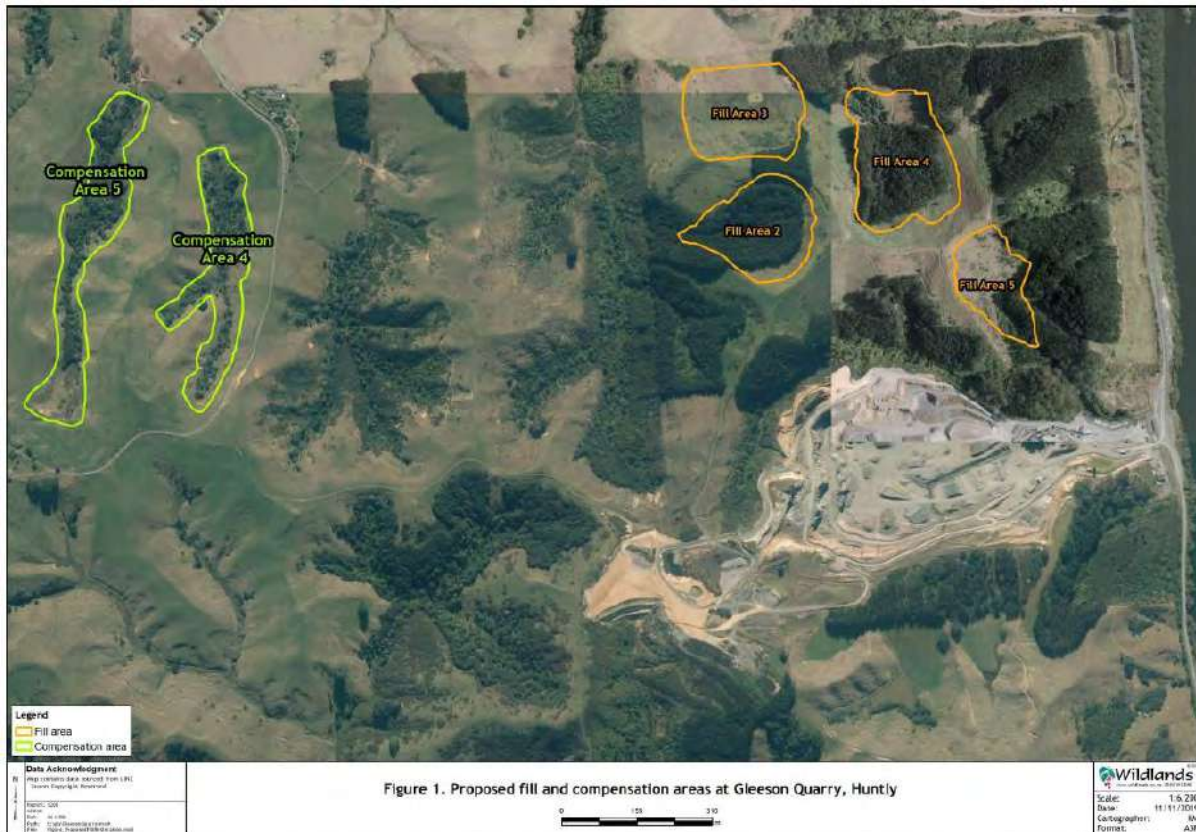


Figure 3: Proposed Compensation Area

On the basis of filling at the maximum rate of 300,000m³ per year, the activity will be completed in 7 years. However, the applicant has requested a term of 35 years for the consents required from Waikato Regional Council, to provide for the potential that the gullies are not used for managed fill and are used for the deposition of quarry overburden only. The quarry itself has about 50 years left to run dependant on the rate of extraction. The quarry is authorised to extract 1,800,000 tonnes per year. On this basis, the managed fill operation will not outlast the quarry operations.

1.2 Applications to Waikato Regional Council

The Applicant has also lodged applications with the Waikato Regional Council (WRC). The WRC applications as set out below, are being processed concurrently with this application:

Table 3: Waikato Regional Council Consents

Refence ID	Activity Description
144475.01.01	Earthworks and vegetation clearance within high risk erosion areas associated with the overburden, cleanfill and managed fill disposal areas 2, 3 and 4 and ancillary activities.
144475.02.01	To discharge overburden to land at fill areas 2, 3 and 4.
144475.03.01	To discharge cleanfill and managed fill to land at fill areas 2, 3 and 4.
144475.04.01	To discharge stormwater and treated water in association with Fill Areas 2, 3 and 4.

144475.05.01	To take and divert groundwater and divert stormwater all in association with Fill Areas 2, 3 and 4.
144475.06.01	To undertake stream diversions, reclamation or streams and associated bed disturbance in association with filling areas 2, 3 and 4.
144475.07.01	To discharge treated stormwater to land and/or water within 100 metres of a natural wetland.

The above applications were also subject to a public notification process and all applications to WRC and WDC are being heard and considered together via a joint hearing. The WDC consents cannot be implemented without the consents from WRC also being obtained.

1.3 Description of Site

The subject site is owned by Gleeson Quarries Huntly Limited and is legally described as follows:

Table 4: Legal Descriptions

Legal Description	Size	Notes
Lot 9 DP 1278 and Pt Lot 10 DP 1278 (RT SA149/243)	68.9628ha	Fill Areas 2 - 4
DP 25272 (RT SA656/223)	23.0949ha	
Pt Lot 9-10 DP 1278 (RT SA922/109)	45.8678ha	
Lot 1 DPS 75436 (RT SA57C/382)	374.7741ha	Compensation Site
Lot 1 DPS 4285 (RT SA95C/651)	10.1171ha	Quarry Site and Access
Pt Lot 11 DP 1278 (RT SA200/118)	4047m ²	
Pt Lot 11 DP 1278 (RT SA200/119)	50.5857ha	

A full description of the site is provided in sections 7.1 and 7.2 of the AEE. After visiting the site, I agree with this description and adopt it as my own. The following sections provide a description of each of the three Fill Areas.

1.3.1 Fill Area 2

Fill Area 2 is located north west of the existing quarry pit. The area straddles the boundary of PT Lot 9 DP 1278 and PT Lot 10 DP 1278. The fill area is 3.8ha in size and will be able to accommodate an estimated fill volume of 632,600m³. This fill area is located partially within the Aggregate Extraction Policy Area of the ODP and is entirely within the Aggregate Extraction Area of the PDP. The PDP shows a Significant Natural Area located to the west of Fill Area 2.

Sections 7.16 and 7.17 of the AEE state the following with regard to Fill Area 2:

*“Fill area 2 is a natural closed valley with a west facing gully exit. The face of the hill slopes starts at a gradient of 1:2 and reduce to 1:4 at the ridgeline, and the elevation of the gully rises from 49 mRL to 110.5 mRL. In more general terms, the gully has a steep amphitheatre which rises to the east and lowers towards the western side where the toe of the fill area will be. There is an existing small ponding area at the base of the gully which eventually flows into an existing stream catchment. The original ecological investigation (Boffa Miskell 2019, see **Appendix 12**) recorded an area of wetland*

of 450m² at the base of the gully. The presence and location of a man-made farm dams within Fill Area 2, along with associated ponded areas, were noted by Gaia during geomorphic mapping.

The vegetation for Fill area 2 generally comprises of a mixture invasive namely Gorse (*Ulex europaeus*) and native plant species namely Toetoe (*Austroderia*). A few older pine trees are also present in this area. The fill area is predominantly exotic species”



Photo 1: Fill Area 2 looking north west

1.3.2 Fill Area 3

Fill Area 3 is located north west of the existing quarry pit. The area straddles the boundary of PT Lot 9 DP 1278 and Lot 1 DP 25272. The fill area is 4.2ha in size and will be able to accommodate an estimated fill volume of 576,600m³. This fill area is identified as being used for the storage of hazardous waste or dam tailings and constitutes a ‘piece of land’ under Regulation 5(7) of the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health.

Fill Area 3 is mostly flat with some natural topographical buffers. The natural hill slope on the southern side buffers it from Fill Area 2 and the hill slope on the western side buffers it from the SNA as identified in the PDP. Fill Area 3 is predominantly covered in grass in the flatter areas and the hills are covered in gorse.

Fill Area 3 is located approximately 50m from the shared boundary with the property to the north and 20m from the shared boundary to the east.



Photo 2: Fill area 3 looking south west

1.3.3 Fill Area 4

Fill Area 4 is located north of the existing quarry pit. The area is wholly located within Lot 1 DP 25272. The fill area is 5.1ha in size and will be able to accommodate an estimated fill volume of 800,000m³. High Voltage Power Lines run alongside eastern side of this fill area.

Fill Area 4 is a natural gully. The area is predominantly exotic species and covered with a pine trees and gorse. The pine trees provide a buffer to the east. The fill area is steep on the south eastern side and lowers towards the north west where the sedimentation pond is proposed.

There is a pond on Fill Area 4 within the lower area between a cluster of pine trees. There is also a drainage stream located at the northern section of the fill area. The stream is classified as ephemeral and in some areas an intermittent stream was also identified.



Photos 3: Fill Area 4 looking east

1.4 Legal Interests in the Property

The fill sites are located on Lot 9 DP 1278 and Pt Lot 10 DP 1278 (RT SA149/243) of 68.9628ha, D P 25272 (RT SA656/223) of 23.0949ha and Pt Lot 9-10 DP 1278 (RT SA922/109) of 45.8578ha.

The ecological compensation area is located on Lot 1 DPS 75436 (RT SA57C/382) of 374.7741ha.

The quarry site is located on Lot 1 DPS 4285 (RT SA95C/651) of 10.1171ha, Pt Lot 11 DP 1278 (RT SA200/118) of 4047m² and Pt Lot 11 DP 1278 (RT SA200/119) of 50.5857ha.

All sites are owned by Gleeson Quarries Huntly Limited. There are no interests registered on the Records of Title that would restrict the proposal from proceeding.

1.5 History

The quarry had been operating under existing use rights since the 1930's, resource consents from Waikato District Council were obtained to deepen the existing quarry floor and expand into the Payne Block. These are described as follows:

Resource Consent to undertake the removal and deposit of overburden material was granted on the 5 July 2000 (69 00 14). This resource consent was granted to remove native vegetation and deposit overburden at a rate of approximately 150,000m³ per year for a period up to 8 years. However, there is no timeframe specified within resource consent 69 00 14 and this is still an active consent.

LUC0035/11 was granted on 17 November 2010 to expand the quarry operation into the adjacent block referred to as the Payne Block. The expansion of the quarry extended the

lifespan of the quarry for 30-50 years dependent upon the rate of extraction. The tonnages allowed under this consent were a five year average of 550,000 tonnes per year with a maximum of 900,000 tonnes per year. This land use consent identified and provided for a “Northern Dump Disposal Area” which, subject to conditions, is able to take overburden. This Area will be known as Fill Area 2.

LUC0035/11.01 was granted on 4 September 2014 and provided for an accelerated extraction rate by increasing tonnages to the current levels allowed being 650,000 tonnes per year over a five-year average and a maximum of 900,000 tonnes per year.

LUC0035/11.02 was granted on 1 March 2018 and provided for an accelerated extraction rate by increasing tonnages to 800,000 tonnes per year over a five-year average and a maximum of 1,000,000 tonnes per year.

LUC0035/11.03 was granted on 13 September 2018 and provided for an accelerated extraction rate by increasing tonnages to the current levels allowed being 1,000,000 tonnes per year over a five-year average and a maximum of 1,400,000 tonnes per year.

LUC0035/11.04 was a pre-application process that preceded this application. Pre-application advice was given regarding the increase in tonnage and on future activities relating to cleanfill.

LUC0035/11.05 was an application by new owners of Gleeson Quarry. The application sought to remove conditions that had been complied with and had no ongoing obligations, to increase tonnage allowed to be removed from the quarry and to provide for additional road debris mitigation. The noise limits were proposed to be changed and hours of operation for road traffic were introduced.

LUC0176/20 was an application to remove overburden material from the existing quarry and deposit the overburden material in an identified gully referred to as Fill Area 5. Consent was granted on 17 March 2021.

LUC0167/21 was an application to remove vegetation containing habitat of significant fauna (bats) including felling remnant forestry trees and clearing ground cover within Fill Area 5. Consent was granted in October 2020.

LUC0233/20 was lodged in November 2019 for the generally the same activity for which resource consent is now sought. After being placed on hold for an extended period of time, the applicant withdrew the application on 14 April 2022, being the same time that that LUC0488/22 was lodged.

History relating to the Regional Council consents can be found in Appendix 5 of the application.

2.0 PROCESS MATTERS

2.1 Key Dates

A summary of key dates for this application are summarised in table 5 below:

Table 5: Consent Processing Dates

Date	Description	Working days
14/04/2022	Application lodged under Section 88 of the Act	0
03/05/2022	Extension of time under Section 37 of the Act of notification date (additional 20 working days)	-
27/05/2022	Application put on hold under Section 92	27
23/06/2022	Further information received	27
20/07/2022	Public notification	44
16/08/2022	Submissions close (after 20 working days)	64
04/11/2022	Extension of time under Section 37 of the Act of date of closure of hearing (additional 12 working days)	-
06/12/2022	Start of hearing (78 working days after close of submissions)	142

2.2 Specialist Reports and Peer Review

A number of specialist reports have been supplied in support of this application and the applications submitted to Waikato Regional Council. I note that a number of these are the same reports that were provided with LUC0233/20 (lodged in November 2019 and now withdrawn) which initially included Fill Area 5. Fill Area 5 is not part of this application and was consented via LUC0176/20. As a result, some of the assessments within the specialist reports are no longer relevant.

Where considered appropriate, these have been peer reviewed as outlined in the following table. A copy of these peer review reports are provided with the appendices to this report as outlined in table 6.

Table 6: Specialist Reports and Peer Reviews

Specialist Assessment	Prepared By	Peer Reviewed By
Transport	Traffic Engineering & Management Ltd – TEAM Traffic	Naomi McMinn - Gray Matter Ltd See Appendix E
Noise	Hegley Acoustic Consultants	Siiri Wilkening - Marshall Day Acoustics See Appendix F
Landscape and Visual Effects	LA4 Landscape Architects	Dave Mansergh - Mansergh Graham Landscape Architects See Appendix G
Dust	Pattle Delamore Partners Ltd	Jonathan Caldwell – Waikato Regional Council See Appendix H
Ecology	Boffa Miskell Limited, Wildlands and Envoco Ltd	Karen Denyer - Papawera Geological Consulting See Appendix I
Geotechnical	Gaia Engineers	Cameron Lines - Baseline Geotechnical See Appendix J
Contaminated Soil	EHS-Support	Alan Parkes – Waikato District Council See Appendix K

Stormwater, and Erosion and Sediment Control	Southern Skies Environmental	Anna Kostiuk-Warren – Beca See Appendix L
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3.0 STATUS OF ACTIVITY

3.1 Operative Waikato District Plan – Waikato Section

The Waikato District Plan: Waikato Section was made operative on 5th April 2013.

An assessment of the proposal's compliance with the relevant rules of the Operative District Plan (ODP) has been completed by the Agent and submitted as part of the Application (refer to the updated version of Appendix 7 of the application). In summary, the proposal triggers consent under the rules outlined in the following table. I generally concur with the Agent's assessment except as identified below.

Table 7: Resource Consents Required under ODP

Rule #	Rule Name	Status of Activity	Comment
25.10	Type of Activity	Discretionary	The type of activities proposed as part of this application includes the importation and disposal of managed fill (consisting of asbestos contaminated soil and material), deposit of overburden material associated with quarrying (extractive industry) and potential sales of overburden material.
25.16	Vehicle Movements	Discretionary	<p>The application states that the nature of the proposal is such that 24 additional vehicle movements per day are anticipated. This is in addition to the 466 vehicle movements per day generated by the quarry which are authorised in accordance with LUC0035/11.05.</p> <p>The application outlines that as these 466 movements are consented as per LUC0035/11.05 and fewer than 200 additional movements are proposed, the activity complies within rule 25.16.1 and consent is not required.</p> <p>I disagree with this assessment. As the scale of non-compliance with rule 25.16.1 is increased by the proposal, I consider that the activity triggers the need for a Discretionary Activity consent as per rule 25.16.2</p> <p>In addition to the above, the peer review undertaken by Gray Matter considers that the proposal could generate around 60-70 additional vehicle movements per day, instead of the 24 outlined in the proposal. Therefore, there is potential for the scale</p>

			of non-compliance to be greater than that set out in the application.
25.25	Earthworks	Discretionary	The proposal exceeds the permitted standards for earthworks as the works will involve: <ul style="list-style-type: none"> • cut and fill operations over 1000m³ within a site in a single calendar year • cut and fill operations over 1000m² • cut/batter faces greater than 3m in height being up to 10m in height • changes to natural waterflows and established drainage paths, and • fill areas will not be revegetated within 12 months of commencement
25.27	Earthworks filling using imported fill	Discretionary	This proposal includes filling using imported managed fill and clean fill. The volume/capacity of each Fill Area varies between 576,600 – 800,000m ³ , and the combined total fill volume is estimated to be over 2 million cubic metres. The anticipated fill volume will exceed the permitted volume of 200m ³ and a depth of 1m.
25.43A	Indigenous Vegetation Clearance	Restricted Discretionary Activity	The proposed fill areas will result in the clearing and disturbance of indigenous vegetation for preparation and stabilisation purposes. This includes vegetation clearance already undertaken within Fill Area 3 and within the proposed compensation area. This is not provided as one of the identified purposes in section (a) (i) to (viii) in rule 25.43A.1.

As outlined in the assessment above, the application is a Discretionary Activity under the ODP, being the highest status indicated by the above rules and Council's discretion is not restricted to any matters.

3.2 Proposed Waikato District Plan

On 17 January 2022 Council notified the Decisions on the Proposed Waikato District Plan (PDP). The period for appeals to the Environment Court has since closed. Section 86B(1) of the Act outlines that a rule in a proposed plan has legal effect once a decision on submissions relating to a rule is made and publicly notified under clause 10(4) of Schedule 1. As this has occurred, all rules within the PDP have legal effect.

At the time of writing this report, all of the relevant rules under the PDP are subject to appeals which are currently before the Environment Court and therefore are not yet operative.

In summary, the proposal triggers consent under the rules outlined in the following table.

I note that one key difference between the ODP and PDP for the site is that the extent of the Aggregate Extraction Policy Area (ODP)/Aggregate Extraction Area (PDP) differs. Under the PDP the Aggregate Extraction Area extends further to the north.

Table 8: Resource Consents Required under PDP

Rule	Status of Activity	Comment
GRUZ-R40 An extractive activity or waste management activity located within an Aggregate Extraction Area, Coal Mining Area or Extractive Resource Area	Restricted Discretionary	Fill Area 2 is located wholly within the Aggregate Extraction Area as identified in the PDP. I note that the extent of the Aggregate Extraction Area in the PDP differs from the extent of the Aggregate Extraction Policy Area in the ODP.
GRUZ-R41 A waste management facility located outside an Aggregate Extraction Area, Coal Mining Area or Extractive Resource Area	Discretionary	Fill Area 3 and 4 are outside of the Aggregate Extraction Area, Coal Mining Area or Extractive Resource Area
GRUZ-R45 An extractive activity located outside an Aggregate Extraction Area, Coal Mining Area or Extractive Resource Area	Discretionary	The deposition of any overburden from the adjacent quarry falls within the definition of an extractive activity and may occur within Fill Areas 3 and 4, which are outside the Aggregate Extraction Area.
AINF-R8 Earthworks activities associated with infrastructure	Restricted Discretionary	<p>Earthworks are required for infrastructure such as the stormwater management. The volume and area of earthworks will be exceeded, and works are within 10m of watercourses within the gullies. Areas exposed may not be recontoured/replanted within 6 months of works commencing and the earthworks will divert overland flow paths.</p> <p>Erosion and sediment controls are proposed and will be implemented and maintained. The earthworks are not located within any Historic Heritage site, area/site of significance to Maaori, the dripline of a Notable Tree or SNA/landscape and natural character area.</p>
AINF-R9 Trimming, maintenance or removal of vegetation or trees associated with infrastructure	Restricted Discretionary	Existing indigenous vegetation will be removed to install infrastructure (such as the sediment retention ponds) and will exceed the standards in (a)(iii)
AINF-R10 Pipe and cable bridge	Restricted Discretionary	Stormwater pipes will exceed the standards outlined in (a)

structures for the conveyance of electricity, telecommunications, water, wastewater, stormwater and gas		
TRPT-R4 Traffic generation	Restricted Discretionary	<p>The application states that the proposal is such that 24 additional truck movements per day are anticipated. This is in addition to the 466 vehicle movements per day generated by the quarry which are authorised in accordance with LUC0035/11.05.</p> <p>The application outlines that as these 466 movements are consented as per LUC0035/11.05 and as the additional movements are fewer than 200, the proposal complies within TRPT-R4.</p> <p>I disagree with this assessment. As the scale of non-compliance with rule TRPT-R4 is increased by the proposal, I consider that the activity triggers the need for a Restricted Discretionary Activity consent.</p> <p>In addition to the above, the peer review undertaken by Gray Matter considers that the proposal could generate around 60-70 additional vehicle movements per day, instead of the 24 outlined in the proposal. Therefore, there is potential for the scale of non-compliance to be greater than that set out in the application.</p>
WWS-R5 Pump stations for the conveyance of water, wastewater and stormwater	Restricted Discretionary	The pump and associated tanks required for storing and testing groundwater for Fill Area 3 may exceed 10m ² in area and 3m in height.
ECO-R3 Earthworks in a Significant Natural Area for purposes other than the maintenance of existing tracks, fences or drains.	Restricted Discretionary	Earthworks associated with compensation activities (within compensation area 4) within an identified SNA, are proposed.
ECO-R16 Indigenous vegetation clearance outside a Significant Natural Area for any reason not specified in Standards ECO-R11 to ECO-R15.	Restricted Discretionary	Clearance of all vegetation within Fill Areas 2, 3 and 4 is proposed. This includes vegetation clearance already undertaken within Fill Area 3. Furthermore as part of compensation works, indigenous vegetation has been removed.
EW-R21 Earthworks – general	Restricted Discretionary	Earthworks proposed within Fill Area 2 to 4 exceed the volume, area, depth and slope

		outlined in EW-R21. Earthworks are set back greater than 1.5m from all boundaries, and exposed areas will be stabilised on completion and re-grassed. Appropriate erosion and sediment control measures are proposed.
EW-R22 Earthworks – general	Restricted Discretionary	Given the volume of material to be imported to the site, the works proposed will exceed the volume, depth and slope outlined in EW-R22. Earthworks are set back greater than 1.5m from all boundaries, and exposed areas will be stabilised on completion and re-grassed. Appropriate erosion and sediment control measures are proposed. No works are proposed within a kauri root zone.

As outlined in the assessment above, the application is a Discretionary Activity under the PDP, being the highest status indicated by the above rules and Council’s discretion is not restricted to any matters.

3.3 National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011

Regulation 5 (4) of the Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 (NESCS) describes disturbing soil as an activity to which the NESCS applies where an activity that can be found on the Ministry for the Environment Hazardous Activities and Industries List (HAIL) has occurred.

Regulation 6 of the NESCS specifies that an applicant must establish if any HAIL activities have occurred on the subject site. The applicant can do this by adopting one of two methodologies:

1. Review of all relevant council records including dangerous goods files, property files, registers, databases, resource consent databases, records available from Regional Council;
2. Preliminary Site Investigation undertaken by a suitably qualified and experienced practitioner in accordance with the current Ministry for the Environment’s Contaminated Land Management Guidelines No. 1 Reporting on Contaminated Sites in New Zealand.

The applicant has provided a combined Preliminary Site Investigation (PSI) and Detailed Site Investigation (DSI) as well as a Contaminated Site Management Plan (CSMP). Council’s Contaminated Land Specialist (Mr Alan Parkes) has reviewed the application and has commented:

“Fill Area 3 is identified as containing a piece of land as described by regulation 5(7) and the NESCS therefore applies to the soil disturbance activity associated with the site development. A DSI was undertaken identifying elevations of some contaminants above background levels resulting in the proposal being a controlled activity under regulation 9. A Contaminated Site Management Plan has been submitted in respect of this.”

Therefore, a Controlled Activity consent is required with respect to the NESCS.

4.0 NOTIFICATION AND SUBMISSIONS RECEIVED

4.1 Notification Decision

Following the assessment carried out pursuant to Sections 95A to 95G of the Act, the notification report dated 13 July 2022, concluded that the application be publicly notified at the request of the applicant (as per section 95A(3)(a)).

In addition to the public notification of the application, in accordance with Regulation 10(2)(a) of the Resource Management (Forms, Fees, and Procedure) Regulations 2003, notification was also served on affected persons.

The application was publicly notified on 20 July 2022 and submissions closed on 16 August 2022. A copy of the notification decision report is attached in **Appendix B**.

4.2 Submissions Received

Submissions closed on 16 August 2022 and a total of 36 submissions were received. Of these, 35 submissions were in opposition and 1 was neutral.

4.3 Late Submissions

No late submissions were received

4.4 Summary of Submissions

A summary of each of the submissions made to WDC is provided in **Appendix C**. **Appendix C** also includes a locality map of the submitters opposing the application who own/occupy property within approximately 1km of the site. The original submissions are provided in **Appendix D**. In summary, the main concerns raised by the submissions relate to the following issues:

- Contamination of water (groundwater and stormwater)*
- Contaminants in fill*
- Transport effects
- Community effects
- Ecological effects
- Noise
- Vibration
- Air/Dust
- Odour
- Stormwater/erosion and sediment control
- Monitoring and compliance
- Visual/Landscape
- Land stability/geotechnical
- Waikato River Vision

- Recreation
- Natural hazards and climate change
- Health and safety
- Part 2 of the Act
- Consultation
- Impact to National Grid
- Cultural Effects
- Applicant/Trust in Applicant
- Origin of waste

A number of the submissions received, raise issues which are more relevant for consideration for the WRC consents rather than WDC consents. Those submissions are marked with a * symbol. Only the matters relevant to the WDC consents are considered within this report.

5.0 SECTION 104 CONSIDERATIONS

This section of the report outlines the statutory framework of the Act under which the assessment of the application will be undertaken.

5.1 Section 104

Matters to be considered by the Council when assessing an application for resource consent under s104 of the Act include, subject to Part 2, any actual and potential effects on the environment, any relevant objectives, policies, rules or other provisions of a Plan or Proposed Plan and any other matters considered necessary (i.e. under s104(1)(c)).

The following sections of this report will assess the proposal's effects on the environment and against any relevant objectives, policies of the ODP, the PDP, the Regional Policy Statement and the Regional Plan and other relevant regulations and other matters considered necessary including the NESCS.

5.2 Permitted Baseline

Section 104(2) contains the statutory definition of the permitted baseline. This section specifies that when forming an opinion with regard to the actual and potential effects on the environment of allowing the activity, the consent authority may disregard an adverse effect of the activity on the environment if a national environmental standard or the plan permits an activity with that effect. Application of the permitted baseline is a matter of discretion for the consent authority. If it is applied, permitted effects cannot then be taken into account when assessing the effects of a particular resource consent application. The baseline has been defined by case law as being non-fanciful (credible) activities that could be permitted as of right by the District Plan. I will address the permitted baseline further in Section 6.0 below.

5.3 Part 2 Matters

All of the above considerations under section 104 are subject to Part 2 of the Act – purpose and principles (sections 5, 6, 7 and 8). The key matter when considering this application will be the Act's single purpose as set out in section 5, which is to promote the sustainable management of the natural and physical resources.

A full discussion and assessment of all Part 2 matters and a final overall judgement of whether the proposal promotes this part of the Act is set out in later sections of this report.

6.0 PERMITTED BASELINE ASSESSMENT

The consent authority may disregard an adverse effect of the activity on persons if a rule or NES permits an activity with that effect. The proposed activity (a managed fill and overburden disposal facility) is such that it requires resource consent in this location under both the ODP and PDP. The effects associated with the managed fill activity are also not typical of the rural environment and therefore it is my opinion that no “permitted baseline” exists for this proposal. Accordingly, the “permitted baseline” has not been applied to this proposal.

7.0 EXISTING ENVIRONMENT

When undertaking an assessment of the effects of the proposal, it is important to note that such an assessment is required to be measured against the receiving environment as it exists today.

Relevant to the existing environment are the effects of activities that are lawfully established on the site (either by being permitted under the ODP or through consent) and the effects of activities with existing use rights.

Section 1.5 of this report provides an overview of the site history including discussion on the current consents for the site. Of particular relevance are the following land use consents:

- 69 00 14 – Granted in July 2000, this consent authorised the removal and deposit of overburden material.
- LUC0035/11 – Granted in November 2010, this consent authorised the expansion of the quarry, extending its lifespan for 30-50 years, depending on the rate of extraction. removal and deposit of overburden material. This consent has been to subject of 5 variations under section 127 of the Act, the most recent of which was granted in September 2019.
- LUC0167/21 – Granted in October 2021, this consent authorised the removal of vegetation containing habitat of significant fauna (bats) including felling remnant forestry trees and clearing ground cover.
- LUC0176/20 – Granted in March 2021, this consent authorises the removal of overburden material from the existing quarry and deposit the overburden material to Fill Area 5.

These consents are subject to a number of conditions.

The general location of these activities is identified in Figure 5 below.

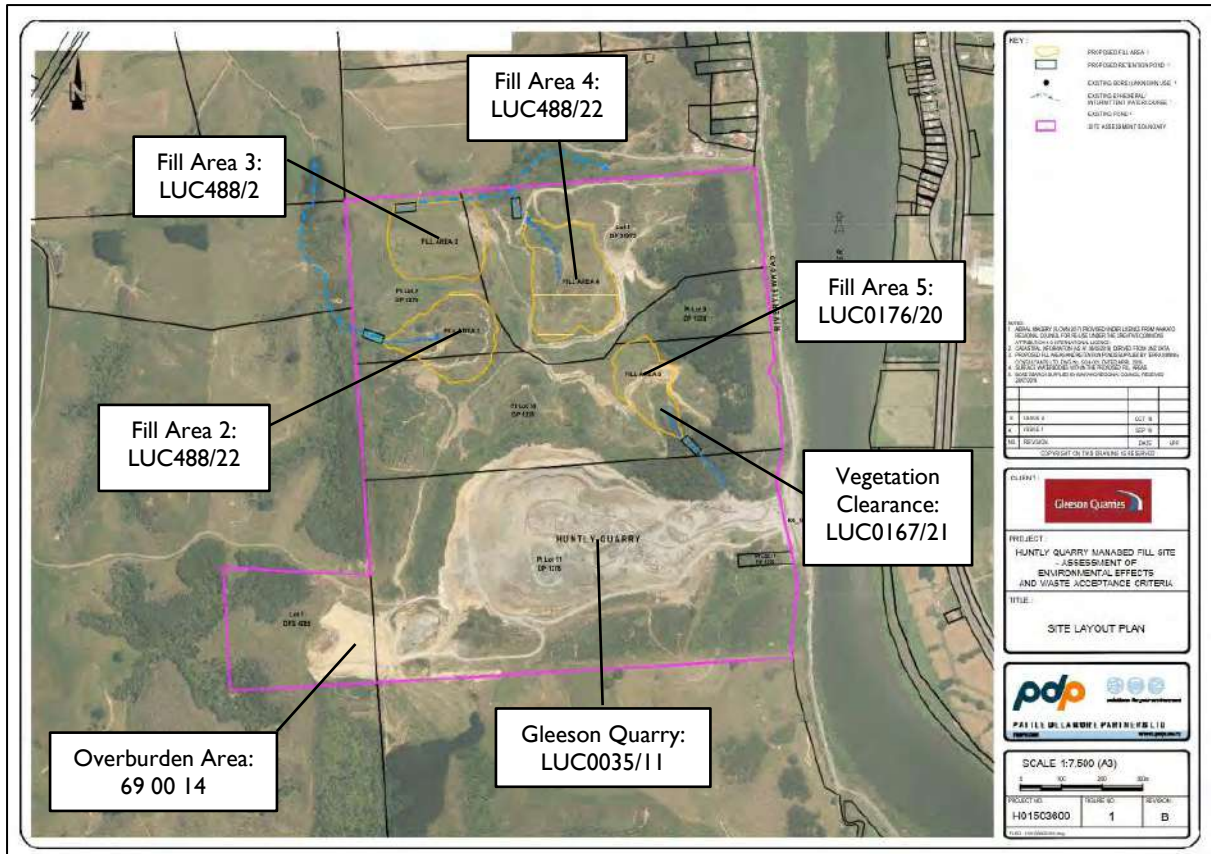


Figure 5: Proposed fill areas and existing consented activities

7.1 Submissions Related to Existing Activities

A number of the submissions have raised issues which relate to the current activities undertaken on the site. In particular concerns are raised in relation to the following matters:

- Dust from trucks and quarry
- Noise and vibration from trucks
- Damage to road and infrastructure
- Sediment on road and road markings
- Congestion and inconvenience caused by the volume of trucks and vehicles cleaning the road
- Speed of trucks
- Time of day of truck movements
- Safety issues for pedestrians and cyclists

While these issues are largely valid concerns (i.e. they relate to effects to the environment) they cannot be addressed through this resource consent process where they are specific to the current activities. It is appropriate to expect the consent holder to operate the consented activities in accordance with the current consents including compliance with all conditions. It is also appropriate that the Councils (both WDC and WRC) monitor these consents (including investigation of any complaints) and take appropriate action should non-compliances be identified.

Where these matters are relevant, is in relation to the potential for cumulative effects to arise. Therefore, as appropriate, these matters will be taken into account in the assessment

of effects in section 8.0 below. For example, the potential effects of noise from the proposed activity is considered with the existing environment in mind and whether or not the additional activity is acceptable.

PROPOSED WAIKATO DISTRICT PLAN ASSESSMENT

8.0 ASSESSMENT OF EFFECTS ON THE ENVIRONMENT- SI04(I)(A) PROPOSED DISTRICT PLAN

This section of the report outlines the actual and potential effects on the environment of allowing the activity in relation to the consenting matters under the PDP (outlined above in section 3.2) and the NESCS. In considering what is an 'effect' for this part of the report, I have had regard to S3 of the Act which sets out the meaning of effect:

In this Act, unless the context otherwise requires, the term effect includes –

- (a) any positive or adverse effect; and*
- (b) any temporary or permanent effect; and*
- (c) any past, present, or future effect; and*
- (d) any cumulative effect which arises over time or in combination with other effects – regardless of the scale, intensity, duration or frequency of the effect, and also includes –*
- (e) any potential effect of high probability; and*
- (f) any potential effect of low probability which has a high potential impact.*

It is also appropriate to consider the meaning of environment, which is listed under section 2 of the Act as being:

- (a) ecosystems and their constituent parts, including people and communities; and*
- (b) all natural and physical resources; and*
- (c) amenity values; and*
- (d) the social, economic, aesthetic, and cultural conditions which affect the matters stated in paragraphs (a) to (c) which are affected by those matters.*

I consider the actual and potential adverse effects on the environment associated with the proposal can be broken down broadly into the following categories:

- Preliminary Matters
- Traffic Effects
- Noise and Vibration Effects
- Landscape and Visual Effects
- Dust Effects
- Amenity Effects
- Ecological Effects
- Land Stability Effects
- Contaminated Land Effects
- Stormwater and Earthworks Effects
- Productive Capability Effects
- Cultural Effects
- Archaeological Effects
- Transmission Effects
- Positive Effects

An assessment of these effects, having regard to the definition applied by the Act is undertaken below.

I note that a number of the above matters will also be discussed in the WRC reporting officer's s42A report as they are cross-over issues.

Where relevant, the assessment identifies if actual and potential effects can be avoided, remedied or mitigated with the use of appropriate conditions of consent. Should it be concluded that consent can be granted, reference to such conditions are set out as **Appendix M**.

8.1 Preliminary Matters

Some submissions raised matters which either are not fundamental to the consideration of the effects of the proposal, or do not fit within the key environmental issues identified above. These matters have been considered here as preliminary matters.

8.1.1 Previous Compliance and Trust in Applicant

A number of submissions have raised concerns around non-compliance with the consent requirements for the current activities undertaken at the site (including those outlined in section 1.5 above) as well as activities that were undertaken without the necessary resource consents first being obtained. Related to this, some submitters have stated that they do not trust the applicant.

As a result, I have reviewed the compliance and monitoring history for the site. Within the past 10 years, complaints have been made in relation to the following matters:

- Debris/dust on the road and subsequent runoff to river. Damage to vehicles from debris
- Hours of truck movements, before 6am
- Barrier erected in road reserve
- Storage of coal at site

The majority of the complaints were made in relation to debris on the road with over 15 complaints counted. It is understood that a wheel wash and a grate at the entrance was installed over this period in an attempt to resolve this issue, but complaints have been recorded as recently as July this year. One complaint was noted in relation to the hours of truck movements, this issue appears to have been addressed via LUC0035/11.05 which saw the introductions of a condition which restricted the hours of truck movements.

It is understood that the complaint in relation to the barriers in the road reserve relates to protests held at the site in 2020, with Council accepting that these were temporary and installed to ensure the safety of protestors and quarry staff.

The complaint related to the temporary storage of coal at the site in 2020 resulted in an infringement notice being issued to the consent holder.

Prior conduct of applicants has been considered by the Courts in *Hinsen v Queenstown Lakes District Council Decision No. A150/03*. In this case the Environment Court reaffirmed the established principles that in considering an application for resource consent:

- Conduct of an Applicant should not influence the judgement of a resource consent application in a punitive manner, and
- It is wrong to confuse decision-making on a resource consent application for the prosecution or enforcement proceeding, and
- That an applicant should not benefit by prior irregular conduct.

In the matter of *Lake Road Preservation Society Incorporated v Lake Road Quarry Limited and O'Callaghan Holdings Limited [2020] NZEnvC 027*, the Court determined that complaints made by residents in close proximity to a site can be taken into consideration when looking at the effects of an activity. In that matter, when considering the consequences of quarrying activity which had been carried out without consent (particularly in relation to the amenity and character of the area), the Court accepted that, along with the observable changes, the complaints by the residents evidenced that the amenity and character of the area had been adversely affected.

In terms of the applicant's ongoing ability to manage the identified effects, the panel must be satisfied that any adverse effects of this proposal can be appropriately avoided, remedied and mitigated by the imposition of conditions. In doing so, the panel are entitled to take a cautious approach to the imposition of conditions and ensure that compliance with such conditions can be easily measured and enforced if necessary. If the panel consider approval of this proposal is warranted, then a schedule of possible conditions have been drafted and are provided at the end of this report.

8.1.2 Impact on Property Values

Some submitters have expressed concern that if consent is granted, their properties would reduce in value or the ability to sell would be affected.

Although the purpose of the Act includes peoples' "economic... well-being" in section 5, the Environment Court has established that only economic effects at a 'macro' level (i.e. effects on the economic well-being of district or regional communities) are relevant. In other words, economic effects on individual landowners are not a relevant concern under the Act.

I appreciate that the above comments do not alleviate the submitters' concerns in relation to this issue, however I note that the focus of this report and the work of the panel will be to examine the primary effects on the environment caused by this proposal and determine the appropriateness of the proposal accordingly.

8.1.3 Consultation

A number of submitters have expressed concern that consultation carried out by the Applicant was inadequate. I note that there is no requirement under the Act for an applicant to consult with anyone. Whilst consultation is considered to be good practice, the only legislative requirement is for the applicant to document the nature and outcomes of any consultation undertaken. The Applicant has provided details of consultation within Section 20 of the Assessment of Environmental Effects and in Appendix 17 and 18.

8.1.4 Benefits to the Community

A number of submissions have outlined that the proposal does not provide any specific benefits to the Huntly community. In particular submitters have noted that the applicant's company is not locally owned and no new jobs are created. While the definition of effect in the Act includes positive effects on the environment, the determination as to whether a resource consent is approved or declined does not rely on the balance of effects being positive.

8.1.5 Name of Applicant

A submitter has raised concern that the applicant is "Gleeson Managed Fill Ltd" and not "Gleeson Group" as a liability protection method. They have noted that the land is owned by "Gleeson Quarries Huntly Ltd". The name of the applicant is not a resource management matter. Furthermore, land use consents run with the land, therefore any consent operator (should it change) is required to comply with the consent, if granted.

8.1.6 Origin of Fill

Some submitters have stated that they believe the majority of fill will come from outside of the Waikato Region. They have stated that this is not appropriate and waste from other regions shouldn't be disposed of at the subject site. It is my opinion that the origin of the fill is not relevant except in considering traffic effects in relation to the direction of vehicle movements (discussed in section 8.2 below).

8.2 Traffic Effects

The application includes a Traffic Impact Assessment (TIA) prepared by Traffic Engineering & Management Ltd (Team) with the most up to date version being dated 22 May 2022. A peer review on behalf of Council by Gray Matter Ltd (Gray Matter) dated 20 October 2022 has been provided.

The proposal requires the use of heavy vehicles to transport the fill material to the site as described in section 1.1 of this report above and within the application. The applicant anticipates that there will be 60 trucks (120 movements) to the site per day as a result of the managed fill activity. Of these, 80% are anticipated to be Gleeson and Cox owned trucks which at present (under the current consented activity) arrive to site empty. In accordance with this proposal, 80% (48 trucks) will instead arrive with a load of fill. On this basis, the remaining 20% equates to 12 additional trucks (24 movements). The TEAM TIA assessment is undertaken on this basis and there will be a 50/50 split between vehicles arriving at the site from the north and south.

The applicant has provided an internal site circulation plan (see Figure 6 below) which identifies the location of a proposed second weighbridge. The TEAM TIA states that the timing of installation of this wheel wash is to be determined by the applicant based on the activity reaching consented volumes. A single wheel wash is considered to be appropriate.



Figure 6: Internal Site Circulation Plan

The peer review undertaken by Gray Matter considers that the proposal could generate around 60-70 additional vehicle movements per day. Despite this, the Gray Matter peer review considers that the proposal is unlikely to lead to unacceptable adverse safety and efficiency effects. With particular regard to Riverview Road, there is adequate capacity in the network and any off site effects are focused around the vehicle entrance. The Gray Matter peer review also notes that Council (as Road Controlling Authority), has recently adopted speed limit changes through the bylaw process which will see this section of Riverview Road, south to the one-way bridge reduced to 60km/h.

The Gray Matter peer review evaluates the transportation impacts (with consideration given to the application, the TEAM TIA and the submissions) and provides a summary within a table. This table is replicated in Table 9 below:

Table 9: Gray Matter Evaluation of Transportation Impacts

	Transportation Impact	Discussion	Significance	Extent
1	Efficiency – additional trips on the surrounding network	<p>Extra 60-70 vpd represents 4-5% of the existing network traffic. There is sufficient spare capacity on Riverview Road to accommodate the additional traffic, even if all the cleanfill trucks were additional (i.e. no backloads, 120 vpd). At the vehicle crossing, there is an existing right turn bay. We consider that improvements including new line marking and repairing the seal could be implemented to improve the operation at the vehicle crossing.</p> <p>Backloading the cleanfill trucks with aggregate could potentially be considered a positive effect, reducing the overall number of trips on the wider network, compared to separate cleanfill disposal.</p>	Low	Effects limited to other road users.

	Transportation Impact	Discussion	Significance	Extent
2	Safety – vehicle crossing	<p>There does not appear to be a crash issue at the vehicle crossing.</p> <p>However, there will be more loaded trucks on the network and there is a slightly higher risk of a crash involving a truck resulting in a serious injury. The incremental impact of additional traffic on network crash performance increases the likelihood of deaths and serious injuries and is contrary to the GPS Vision Zero approach of pursuing a reduction. We recommend reinstating the line marking including new shoulder markings and reinstating damaged pavement and surface at the vehicle crossing.</p> <p>The existing sight distance to the south is limited by the horizontal curve on Riverview Road and bank in the verge. However, the posted speed is being reduced to 60 km/h and the available sight distance is sufficient for the existing and expected speed environment.</p>	Low	Effects limited to other road users.
3	Safety – cyclists and pedestrians	<p>The increased number of trucks increases risk to pedestrians and cyclists. There are no existing facilities for cyclists or pedestrians and there are very low user numbers in proportion to existing traffic, but pedestrians and cyclists are very vulnerable to injury.</p>	Low	Effects on pedestrian and cyclists
4	Internal circulation, parking and loading	<p>There is sufficient space within the site for circulation and loading. However there are constraints (weighbridge ramp and low walls) immediately inside the gates meaning that operation through the gates is effectively one way. This can lead to trucks using the unsealed shoulders to queue before entering. We have also observed trucks parking in the shoulders to cover or uncover loads prior to entering/after exiting the site.</p> <p>The existing weighbridge capacity is expected to be exceeded with the additional trucks from the proposed cleanfill and the internal traffic management arrangement shows the location of a second weighbridge. However the timing or trigger for the second weighbridge is not apparent. There is a risk of queuing on Riverview Road if the internal circulation arrangement, particularly at the existing weighbridge is not adequately managed.</p> <p>We recommend that a Circulation and Loading Management Plan be prepared and implemented to demonstrate how internal circulation will be managed to avoid any impacts on Riverview Road such as queuing or parking within the widened shoulders. This should include inbound priority and swept paths to demonstrate opposing truck manoeuvres through the gate and on to the circulation road if not going over the weighbridge. It would be prudent to document the existing activity and include triggers/ layout/ timing (e.g. second weighbridge prior to 30 HVph) for the future layout and internal circulation arrangement.</p> <p>Requirements for covering and uncovering loads within the site to avoid parking in the shoulders should also be included.</p>	Low	Internal and at the vehicle crossing

	Transportation Impact	Discussion	Significance	Extent
5	Pavement impacts	The additional traffic loading will deteriorate the pavement faster. The TIA expects that this additional loading will need to be factored into the Heavy Vehicle Impact fee structure. There will be additional loading on the pavement, however the loading is concentrated to inbound loads and directions, which has already been accounted for by the HIF (LUC 0035/11.05 PC16) being based on both lanes being renewed when triggered by either side. The increase in axle loading resulting from empty clean fill trucks leaving the site is around 5.5%, resulting in an insignificant pavement depth increase to accommodate it.	Low-medium	Traffic routes to the arterial network
6	Dust and detritus on road	The existing site activity includes a wheel wash. However, there is evidence of dust and debris being tracked out of the site. A condition of consent to prevent dust and debris being tracked on to the road should be included. Refreshing the road markings including new diagonal shoulder markings and 200mm wide edge lines will improve conspicuity and reduce the risk of tracked aggregate and dust obscuring the markings. Seal repairs should be completed where there is evidence of surface damage such as edge break, potholes and water ponding.	Low	At the vehicle crossing

On the basis of this assessment (should the panel be of a mind to grant the consent) Gray Matter has recommended the following conditions:

- *Maximum total vehicle movements at the vehicle crossing (60 vph and 12 vph during 5am-6am)*
- *Methods to prevent dust and debris being tracked on to the road network and remove and clear the road of debris when required by WDC.*
- *Preparation and implementation of a Circulation and Loading Management Plan be prepared and implemented to demonstrate how quarry/cleanfill operation internal circulation will be managed to avoid any impacts on Riverview Road such as queuing or inappropriate parking within the widened shoulders. This should include:*
 - *swept paths to demonstrate opposing truck manoeuvres through the gate and internally, particularly if not traveling over the weighbridge.*
 - *the current activity and identify holding/waiting areas for trucks waiting for the weighbridge*
 - *triggers/ timing of the second weighbridge.*
 - *inbound truck priority at the weighbridge and documenting how truck driver behaviour will be managed to ensure that queuing does not occur within the shoulders.*
 - *monitoring and reporting the number of backloads to Council.*
 - *removal and replacement of trailer tarpaulins/load covers to be completed within the site.*
 - *no waiting /queuing in shoulders of Riverview Road at the vehicle crossing.*
- *Reinstatement of and new line marking on Riverview Road within 200m of the entrance, including new diagonal shoulder markings, no stopping lines and 200mm wide edgelines.*
- *Reinstatement of pavement and surfacing on Riverview Road to damaged areas and to prevent ponding in the shoulders and at the vehicle crossing for 200m (north and south), opposite and adjacent to the site.*
- *Alter entrance to allow for two way operation over a minimum of 60m from the edgeline of the near lane on Riverview Road.*

8.2.1 Submissions on Traffic Effects

The submissions have raised concerns with regard to traffic effects. The matters raised can be summarised as follows:

- Damage to road/roading infrastructure including worsening of existing damage. Subsequent damage to private vehicles (item 5 in table 9)
- Size/weight of trucks (item 5 in table 9)
- Safety for cyclists and pedestrians (item 3 in table 9)
- Congestion on road caused by trucks and road sweeper at/near entrance to site and by trucks within wider network (item 4 in table 9)
- Safe and efficient operation of local road network (items 1, 2 and 3 in table 9)
- Debris on road and effectiveness of wheel wash (item 6 in table 9)
- Payment by applicant for road repairs (item 5 in table 9)
- Volume of trucks associated with activity (item 1 in table 9)
- Inaccuracies in traffic assessment including 50/50 split in direction of vehicles
- Speed of trucks and driver behaviour
- Hours of truck movements and compatibility with residential activity

Most of the points raised the submitters are discussed in the assessment above. To aid with cross-referencing, for each point noted above, I have cross referenced the item number to Table 9 as per the text in brackets. Further discussion on the issues raised by submitters is provided by the Gray Matter peer review within a table which is replicated in Table 10 below. Furthermore, the last three points in the list above are also discussed in turn below.

Table 10: Gray Matter Review of Transport Related Submissions

Transport concern	Our comment/response	Mitigation / Condition needed?	Suggested Condition/Action
<i>Hours of truck movements.</i>	<i>The proposed operational hours of the cleanfill activity are the same as the existing quarry. If all of the cleanfill trucks were to coincide with the peak hour, there is potential for significant increase in hourly movements. This scenario is very unlikely as the Applicant expects most cleanfill trucks to backfill with aggregate.</i>	Yes.	<i>Condition that restricts all movements at the vehicle crossing to match LUC 0035/1 1.05 PC 6c. (12vph on weekdays 5am-6am) and PC 14a (maximum of 60vph).</i>
<i>Damage to pavement/infrastructure (including Tainui Bridge, roundabout connecting Tainui bridge to Huntly West, Great South Road and Tainui Bridge Road).</i>	<i>The cleanfill proposal results in a small increase in trucks compared to the existing quarry activity (around 12%). Road maintenance is the responsibility of WDC as RCA. We recommend repairs at the vehicle crossing where there is damage from quarry trucks. The cleanfill proposal results in a small increase in trucks at the vehicle crossing and reduces away from the site as the trucks disperse on the network. Pavement impacts have been considered and have already been accounted for by the quarry consent Heavy Vehicle Impact Fee.</i>	Yes.	<i>Condition requiring monitoring and reporting the number of backloads. Condition requiring pavement and surfacing reinstatement at the vehicle crossing and Riverview Road.</i>

Transport concern	Our comment/response	Mitigation / Condition needed?	Suggested Condition/Action
Dust, noise and vibration from trucks	<p>Noise and vibration are amenity effects arising from traffic, rather than a direct traffic effect.</p> <p>However, the speed on limit Riverview Road will be reduced to 60 km/hr which should also have benefits in reducing noise and vibration.</p> <p>The existing quarry activity consent conditions require a wheel wash. Existing concerns are a consent monitoring and enforcement issue.</p>	Yes. Monitoring and enforcement of existing quarry conditions relating to wheel wash, dust and debris.	Condition of consent to prevent dust and debris being tracked on to the road network.
Sediment on road and road markings	<p>The existing road markings are worn and there is evidence of debris being tracked on to the road. The existing shoulders are wide and we recommend a refresh of road markings as well as additional markings in the shoulders to better define the traffic lanes and discourage use of the shoulders.</p>	Yes.	<p>Condition of consent to prevent dust and debris being tracked on to the road network.</p> <p>Condition requiring pavement and surfacing reinstatement and line marking improvements at the vehicle crossing.</p>
Congestion and inconvenience caused by the volume of trucks and vehicles cleaning the road	<p>The cleanfill proposal results in a small increase in trucks compared to the existing quarry activity, around 5-10% of the existing quarry activity. Riverview Road has capacity to accommodate the additional trucks.</p> <p>We observed the temporary traffic sign (road sweeper) and temporary speed limit at the vehicle crossing on a Sunday when there was no work occurring. Recommend including an advice note to cover off the need for a Temporary Traffic Management Plan approved by WDC as RCA.</p> <p>The existing quarry consent (LUC 0035/11.05 PCI7) requires the consent holder to remediate any debris if it is tracked on to the road. The consent condition also requires the consent holder to take action to modify the operation of the quarry so that debris is not tracked or spilled onto Riverview Road. This is an issue relating to the existing activity and appears to be a monitoring and enforcement issue.</p>	No.	Include advice note relating to temporary traffic management plan for generic road cleaning activities
Speed of trucks	<p>Waikato District Council has recently adopted speed limit changes through the bylaw process. Council Roding staff have advised that this section of Riverview Road, south to the one-way bridge has been included and the posted speed limit will be reduced to 60 km/hr . The reduction in speed environment will be a safety improvement to all users.</p> <p>Compliance of drivers to the speed limit is an enforcement issue addressed by NZ Police, separate to this RMA consent process.</p>	No.	

Transport concern	Our comment/response	Mitigation / Condition needed?	Suggested Condition/Action
Safety issues for pedestrians and cyclists	<i>The proposed cleanfill activity results in a small increase in trucks traveling along Riverview Road compared to the existing quarry. There are no pedestrian or cycle facilities along the section of Riverview Road adjacent to the quarry and there are low user numbers in proportion to existing traffic. The risk to pedestrians and cyclists as a result of the small increase in cleanfill trucks is low given the low demand, lack of existing facilities and rural nature of the area. The reduction in posted speed limit to 60 km/hr on Riverview Road will improve safety for all users.</i>	No.	

I note that the majority of submissions raise transport issues that relate to the current consented activity. The assessment undertaken in this report has assumed that the applicant will meet the obligations of their current consent and that appropriate enforcement action will be taken should this not be the case. The Gray Matter peer review notes that the additional vehicle movements generated by the proposal (being 4-5% of the existing network traffic based on 60 – 70 vehicles per day) can be accommodated within the network. On this basis, it is my opinion that the proposal does not generate an adverse cumulative effect in terms of traffic matters.

Inaccuracies in traffic assessment including 50/50 split in direction of vehicles

The Gray Matter peer review is generally in agreement with the conclusions drawn in the TEAM TIA except as has been noted above. In terms of the 50/50 directional split of trucks arriving to and from the site, the Gray Matter peer review notes that directions from traffic counts appear to indicate that more traffic turns left out (to the north) but that this varies from 50% to 80%. The Gray Matter peer review has been undertaken on the basis of a 50/50 directional split. It is my opinion that it is appropriate that the applicant elaborate on this matter further in their evidence to provide confirmation that this is accurate.

Speed of trucks and driver behaviour

Adherence to posted speed limits and the New Zealand Road Code is a matter for enforcement by the Police. It is not a matter which can be controlled via the Act. It is also expected that all staff are provided with adequate training as appropriate and have current drivers licence which allows them to drive heavy vehicles.

Hours of truck movements and compatibility with residential activity

The concerns raised in relation to the hours of truck movements and the subsequent effects on amenity values (including compatibility with residential activity) appear to relate primarily to noise and vibration effects. These are considered in section 8.3 below. I note that the hours proposed align with the hours for the quarry as per LUC0035/11.05.

8.2.2 Summary of Traffic Effects

On the basis of the comments within the TEAM TIA and Gray Matter peer review, it is my opinion that the traffic effects will be acceptable. This is on the basis that (should consent be granted) conditions are imposed as outlined in the Gray Matter peer review and Appendix M.

8.3 Noise and Vibration

Unreasonable or excessive noise has the potential to impact upon amenity as well as people's health and well-being. The proposed activity will generate noise, primarily from the operation of machinery and vehicles. The applicant has provided an assessment prepared by Hegley Acoustic Consultants (HAC), dated 14 June 2022 and a peer review has been undertaken on behalf of Council by Marshall Day Acoustics (MDA), dated 12 October 2022. The following assessment relies upon the information in these reports.

The effects of noise from the proposal needs to be assessed against the existing environment which includes the quarry and the consented overburden disposal at Fill Area 5 (as discussed in section 7.0 above). The HAC report includes measurements of the existing noise environment, taken in July 2019 at two sites: 70 Hillside Heights Road, and 206 Riverside Road. I note that these measurements were taken prior to consenting of Fill Area 5 and prior to the opening of the Waikato Expressway Huntly Section. The MDA peer review notes that daytime sound levels were generally low at 70 Hillside Heights Road (generally below 40 dB L_{A95} during daytime) and at 206 Riverview Road, sound levels were moderate (ranging from 40 to 50 dB L_{A95}).

The HAC assessment notes that hours of operation will be Monday to Friday 6am to 7pm and Saturday 6am to 2pm, with no works undertaken on a Sunday and public holidays. However, truck movements are proposed to be Monday to Friday 5am to 8pm and Saturday 6am to 3pm between 1 October to 30 April and Monday to Friday 5am to 6pm and Saturday 6am to 3pm between 1 May to 30 September, with a limit of 12 trucks per day between 5am and 6am. LUC0035/11.05 is subject to a condition which limits truck movements to a maximum of 12 per day between 5am and 6am, thus no additional trucks during this time frame are enabled by this proposal.

On the basis of these hours, noise produced by the activity is predicted by HAC under a "worst case" scenario with all machinery operating and where the fill is at its maximum height (and therefore minimal screening by ground contour). All operations are predicted to comply with the noise standards of the PDP. Accordingly, the HAC assessment states that it is proposed to comply with the Rural Zone noise limits as outlined in the PDP. The MDA peer review agrees that compliance can be achieved, and the PDP noise limits are appropriate, noting that the PDP uses the latest and therefore most relevant standard for the assessment of noise – NZS 6802:2008. Subsequently, the PDP adopts the notional boundary concept. Furthermore, the PDP contains the L_{Aeq} measurement descriptor rather than the outdated L_{A10} (identified in the ODP).

The MDA peer review, notes that while compliance can be achieved at all dwellings, the proposed early fill operations from 6am to 7am, particularly for Fill Areas 3 and 4 will likely be noticeable at closest dwellings, both in magnitude and character. In particular, background noise levels for dwellings in Hillside Heights Road are around 30dBA L_{A90} which will make intermittent and engine noise clearly audible. MDA questions whether there is a need for

works to start prior to 7am at Fill Areas 3 and 4 noting that Fill Area 3 and 4 are both outside of the Aggregate Extraction Area and therefore the expectation for activities of this nature to take place is reduced. On this basis, the MDA review states that amended hours (i.e. a start time of 7am instead of 6am) for Fill Areas 3 and 4 would be desirable. However, the MDA peer reviewer considers that the effect of noise from activities at Fill Area 3 and 4 (as well as Fill Area 2) with a start time of 6am will be acceptable on the basis that compliance with the noise limits can be achieved.

8.3.1 Submissions on Noise and Vibration

The submissions have raised concerns with regard to noise and vibration. The matters raised can be summarised as follows:

- Hours of operation
- Hours of truck movements
- Noise and vibration from trucks
- Acoustic assessment methodology and accuracy
- Noise effects on Hillside Hotel

The hours of operation and truck movements is discussed in the general noise assessment above. The outstanding matters are discussed below.

Noise and vibration from trucks

A number of the submitters have raised concerns with regard to noise and vibration generated by trucks associated with the activity, noting that many of the submitters have identified effects arising from the current, consented activity. The HAC assessment noted that the increase of 12 trucks per day will be insignificant and will not have any noticeable effect on the traffic noise for residents along Riverview Road. An assessment of vibration is not provided by HAC.

The MDA peer review comments on this matter, noting that noise and vibration is increased at higher speeds and the quality of the road surface. Repairs to the surface of the road are the responsibility of Council as the Road Controlling Authority but as noted in the Gray Matter review, the applicant is required to pay Heavy Vehicle Impact Fees which is intended to contribute to their share of the costs of repairs.

The MDA peer review notes that noise and vibration from trucks on the public road are outside the realms of this consent as vehicles using the public road are a permitted and expected activity. Despite this, the applicant can assist in reducing these effects through a thorough a management plan that requires truck drivers to adhere to a set of rules such as vehicle speed, engine braking use. Given that 80% of the trucks are Gleeson owned, the operator will have particularly good control over the trucks accessing the fill site.

Acoustic assessment methodology and accuracy

The MDA peer review has generally agreed with the conclusions in the HAC assessment and has not raised any concerns with the methodology. The MDA peer review also outlines that they have undertaken spot check calculations and have found that the predictions are generally within the correct magnitude.

The submissions have also queried why noise levels across the Waikato River have not been provided. The MDA peer review notes that these may be provided by the applicant at the time of the hearing, but on the basis of their calculations, compliance with the relevant noise limits can be achieved.

Noise effects on Hillside Hotel

A submission from the owner of the Hillside Hotel, located on the other of the Waikato River has noted the potential noise effects to this site. The MDA peer review notes that while noise from the fill activity may be audible at the hotel at times, the existing quarry, roads and other activities in the area will also be audible and contribute to the overall noise level. The fill activity will not be a significant contributor to the overall noise level at the hotel and ready compliance with the limits can be achieved.

8.3.2 Summary of Noise and Vibration Effects

Based on the comments within the HAC assessment and MDA peer review, it is my opinion that the effects from noise and vibration will be acceptable if the recommended conditions are imposed (see Appendix M).

8.4 Landscape and Visual Effects

The application includes an assessment of landscape and visual effects prepared by LA4 Landscape Architects (LA4) dated 19 August 2019 with updates provided in a memo dated 3 June 2022. Within the landscape and visual effects assessment, the report considers the existing character of the site and surrounds, identifies the key landscape features and the elements of the proposal visible from outside of the site. This assessment has been peer reviewed by Mansergh Graham Landscape Architects (MGLA) dated 21 September 2022.

The LA4 assessment states that *“the wider environment has been subject to modification and is not high in landscape character values”*. I note that a small portion of the site along the Riverview Road frontage is identified as being within the Outstanding Natural Landscape Area in the PDP. The fill areas and proposed internal roads are not within this Outstanding Natural Landscape Area. The LA4 report states that: *“the landscape values associated with the area are only moderate due to the rural land use activities, quarrying activities and lack of significant natural landscape features in the area.”* The LA4 report notes that the fill areas will permanently alter the landform, but these changes *“could be absorbed within the rural landscape without adversely affecting the landscape values”*. Similarly, the *“site itself is not high in natural character values and has been highly modified through past vegetation removal, quarrying and grazing activities. Once completed, the proposal would not adversely affect the natural character of the site or wider landscape as the resulting pastoral and vegetated landform would become part of the surrounding landscape.”*

The LA4 assessment considers the visual effect of the proposal from a visual catchment. It is stated that this is restricted due to screening provided by the existing landform and vegetation. Viewpoints from the following five representative locations have been assessed, with the location identified in figure 7.

- Viewpoint 1: Properties on the eastern banks of the Waikato River
- Viewpoint 2: State Highway 1
- Viewpoint 3: State Highway 1 layby
- Viewpoint 4: Hillside Resort

- Viewpoint 5: Hillside Heights Road

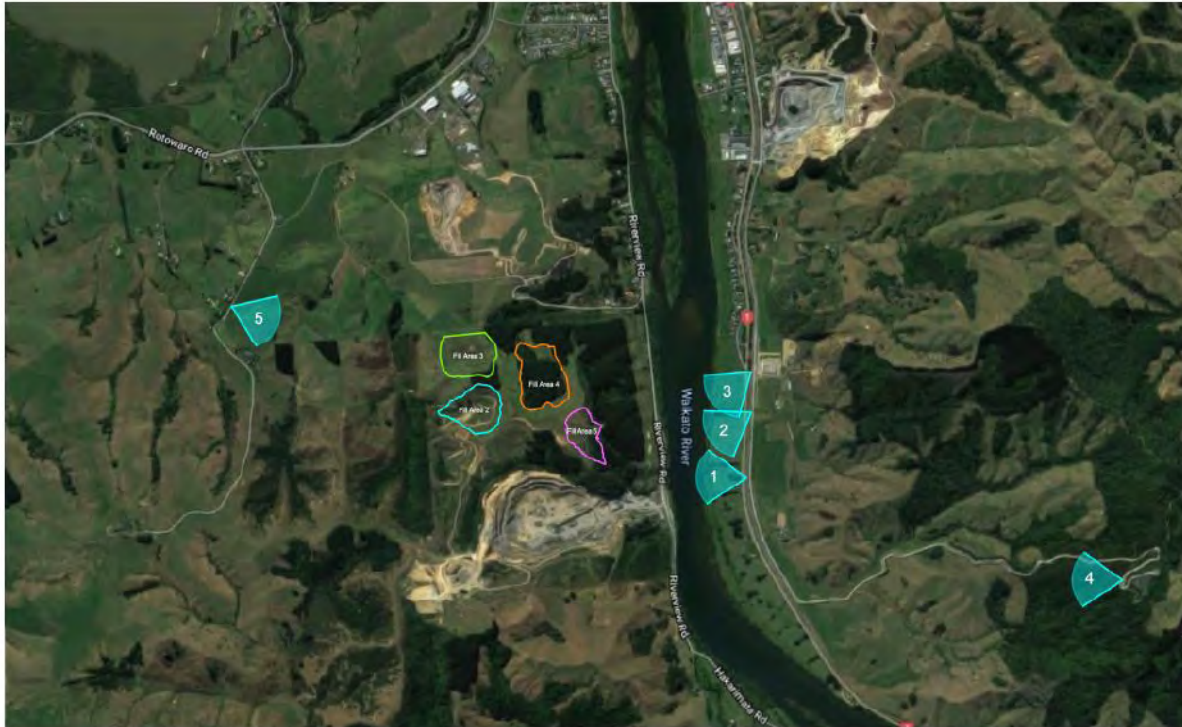


Figure 7: Viewpoint Location Map

The visual effect for each viewpoint is assessed by LA4. I note that their assessment refers to Fill Area 5 which is not part of this application and is consented as per LUC0176/20. For viewpoints, 1, 2 and 3, the visual effects are assessed by LA4 as being negligible which equates to a less than minor effect. This is because the proposed fill areas are unlikely to be visible from these locations.

For viewpoint 4 (the Hillside Hotel) views to the site are distant but from an elevated position. Views to the fill sites are either screened or filtered by landform and existing vegetation. The visual effect is assessed by LA4 as being very low which equates to a minor effect. For viewpoint 5 (Hillside Heights Road), views to Fill Areas 3 and 4 are available. The LA4 assessment notes that the removal of vegetation in the initial stages will have a noticeable impact and the contrast between the exposed fill and surrounding areas will highlight the presence of the activity. However, the site will be reinstated incrementally with pasture and at completion. Upon completion the fill areas will extend the rolling landform and the new landform will be assimilated within the landscape. As result, the LA4 assessment has rated the proposal as having a low effect.

The peer review by MGLA notes the following concerns with the LA4 assessment:

- No interim effects rating is provided
- No final contour or landform integration contours are provided. Such information would be a useful addition to communicate how the fill areas are to be integrated
- The inclusion of a Zone of Theoretical Visibility (ZTV) analysis would have been useful to help understand the potential visual catchment in more detail and determine the relative importance of existing trees for mitigation
- Labels on all viewpoint photos to identify the location of the (unseen) fill areas would provide better understanding of the potential visibility

Despite this, the MGLA peer review states that there is no reason why consent could not be granted. In particular the peer review notes that upon completion, it is agreed that the fill sites will not result in an unacceptable level of effect on surrounding rural character or visual amenity values represented by the identified view locations. This is subject to the following conditions being imposed:

- i) *That the existing pine and eucalyptus plantations that screen the clean fill sites from view be maintained until after all filling is completed.*
- ii) *That upon completion of each lift or overall completion, the clean fill landform is shaped to visually integrate with the adjacent natural landform.*
- iii) *That the finished landform and all associated disturbed areas are re-grassed and returned to pasture/planted in Pine.*

In relation to the pine and eucalyptus plantations necessary to screen the fill sites, I note that there is an area of these trees which are required to be retained in accordance with the resource consent for Fill Area 5. As the LA4 assessment was initially undertaken to include Fill Area 5, it is unclear whether there is additional vegetation to the north that also requires retention to provide screening for Fill Areas 2 – 4. Therefore it is my expectation that clarification on this matter, including plans showing the extent of vegetation to be retained, be provided in the applicant's evidence.

8.4.1 Submissions on Landscape and Visual Effects

The submissions have raised concern about the potential of the proposal to change the landscape. It is my opinion that this matter is adequately considered in the assessment by LA4 and the MGLA peer review.

8.4.2 Conclusion on Landscape and Visual Effects

I consider that the landscape and visual amenity effects of the proposal will be acceptable. This is on the basis of the LA4 assessment and MGLA peer review. Subject to compliance with conditions outlined in Appendix M, should the panel determine that consent can be granted, the potential landscape and visual effects will be acceptable.

8.5 Dust

The nature of the activity is such that it has the potential to generate dust. This is expected to be generated via the movement of soil, placement of fill material, rehabilitation and from vehicle movements. Discharges to air and in particular in terms of air quality effects (including health and safety matters) are assessed by WRC. However, for WDC, it is appropriate to consider the potential nuisance effects and the impacts upon amenity in relation to dust.

The applicant has provided an assessment prepared by Pattle Delamore Partners Ltd (PDPL), dated 4 November 2019 and a peer review has been undertaken by Jonathan Caldwell, Senior Scientist at Waikato Regional Council, dated 9 August 2022 with an update dated 4 November 2022. The following assessment relies upon the information in these reports.

The PDPL report notes that larger dust particles fall out relatively quickly with distance while smaller particles can be suspended for longer. The factors that influence dust are identified as:

- The size of particles within fill material
- Disturbances of potentially dusty material such as excavations, loading/unloading, traffic on unsealed roads
- Wind speed
- Moisture content
- Area of exposed surfaces
- Frequency of rain events

The PDPL assessment notes that the nearest sensitive receptor is the dwelling located at 232 Riverview Road, being within Lot 1 25272 which is part of the subject site. This dwelling is approximately 300m from the fill areas. All other dwellings are located 400m or more from the fill areas. Consideration of topography and meteorology information concludes that properties to the east and north east of the site are most at risk of being exposed to dust. However, given that the sensitive receptors are located a minimum of 400m from the fill areas, there is limited potential for off-site dust effects.

Methods to mitigate the effects of dust are recommended by within the PDPL assessment. In particular this includes the preparation and adherence to a Dust Management Plan. A draft Dust Management Plan is provided within the application.

Mr Caldwell's peer review is generally in agreement with the assessment provided by PDPL. Mr Caldwell agrees that adherence with the Dust Management Plan is necessary to mitigate dust effects with the additional recommendation that works ceases during strong winds. On this basis Mr Caldwell considers that the effects of dust will be no more than minor. It is my understanding that a Dust Management Plan condition is recommended to be included within the suite of WRC conditions. For the WDC conditions, a condition which outlines that the site be managed in accordance with the Dust Management Plan as well ensuring that dust emissions do not cause an objectionable effect beyond the boundaries of the site is appropriate should the panel determine that consent is granted.

8.5.1 Submissions on Dust

The submissions have raised concerns with regard to dust. The matters can be summarised as follows:

- Dust from trucks, covering of loads
- Material on road and disturbance by trucks
- Effectiveness/use of wheel wash
- Accuracy of PDPL assessment
- Cumulative dust effects
- Adequacy and effectiveness of mitigation
- Impact on views from dust

Generally, these matters have been considered within the PDPL assessment and the peer review by Mr Caldwell. The Dust Management Plan proposes that trucks transporting fine materials are covered and the applicant has further noted that all trucks will be covered as necessary to comply with the Official NZ Truck Loading Code produced by Waka Kotahi.

The covering of loads along with the use of the existing wheel wash should prevent the transfer of material to the road surface. It is expected that the wheel wash be used as necessary and maintained on an ongoing basis. Dust management as above will also mitigate the effects of dust on views of the site.

Mr Caldwell has not identified any inaccuracies in the assessment prepared by PDPL and concludes that the mitigation measures are appropriate (noting the additional recommendation that works cease during strong winds). Adherence with these mitigation measures (along with assumed compliance with conditions for current activities) will ensure that cumulative effects of dust are avoided.

8.5.2 Summary of Dust Effects

Overall, I consider the dust effects of the proposal will be acceptable subject to the imposition of and compliance with conditions of consent (outlined in Appendix M).

8.6 Amenity Effects

As defined by the Act, amenity values mean those natural or physical qualities and characteristics of an area that contribute to people's appreciation of its pleasantness, aesthetic coherence, and cultural and recreational attributes. It is my opinion that the amenity values of the area are largely impacted by the factors discussed in sections 8.2 to 8.5 above.

The established amenity of the area is also relevant. The quarry has operated on the site since the 1930s. Although the site is located within a General Rural Zone but is also, in part, identified as being within the Aggregate Extraction Area in the PDP. Accordingly, the existing activity is recognised within the PDP and relevant objectives/policies are provided. Therefore, the amenity of the area surrounding the subject site differs from a typical rural environment where primary production activities (in particular pastoral farming) is the dominant activity with low density rural residential interspersed throughout.

In addition to this, it is noted that as Fill Area 2 is wholly within the Aggregate Extraction Area, where Rule GRUZ-R40 provides for extractive activities or waste management activities as a Restricted Discretionary Activity, rather than being a Discretionary Activity where outside of the Aggregate Extraction Area. Therefore, the plan signals some expectation for this activity on part of this site.

Other factors raised in the submissions relevant to amenity are odour and recreation. With regard to odour, the peer review undertaken by Jonathan Caldwell, Senior Scientist at Waikato Regional Council (dated 9 August 2022 with an update dated 4 November 2022) has considered this potential effect. Mr Caldwell identifies specific concerns related to odour from marine sediments where he notes that the odour risk could be properly managed from this source. However, he has made a separate recommendation that marine sediments not be accepted at the site in relation to effects related to land and water, being a separate issue for consideration in relation to the WRC consents.

With regard to odour from other sources, Mr Caldwell states the following:

"...it is important to note that this managed fill operation will not be accepting putrescible materials such as food and animal waste or green waste that can generate odorous gases on breakdown.

In summary, I do not consider odour as a discharge of concern based on the proposed activity. However, I am aware that there have been situations at other sites where non-compliant fill has been received which has resulted in odour issues. I would therefore recommend that a condition of consent is included that provides specific restrictions around this as follow:

The discharge shall not result in odour that is objectionable to the extent that it causes an adverse effect at or beyond the boundary of the subject property.”

A condition to this effect is recommended (within Appendix M) should the panel determine that consent can be granted.

Adverse effects to recreation values are raised in relation to the use of Lake Puketirini which is a popular place for water sports (swimming and boating) as well as use of the surrounding walking tracks. The proposal does not prevent access to Lake Puketirini in any way. Instead the effects to recreational values would result if the water quality of the lake were to be compromised. At the time of finalising this report, I was able to review a draft of the WRC officers report. This draft noted that the proposal is not anticipated to have any measurable effect on water quality for Lake Puketirini. On this basis, it is considered that the Lake would continue to be suitable for contact recreation purposes and recreational values maintained.

On the basis of the above, it is my opinion that the effects to amenity values will be acceptable.

8.7 Ecological Effects

The proposed fill activity will result in the clearing and disturbance of indigenous vegetation. Fill Areas 2, 3 and 4, as well as the associated infrastructure (such as internal road and sediment ponds) are all located outside of Significant Natural Areas (SNA) identified in the PDP, though there is an area of SNA directly to the west of Fill Area 2. The activity has the potential to have adverse effects in terms of indigenous vegetation loss, habitat loss and effects on indigenous fauna.

The applicant has engaged a number of experts to prepare assessments which consider the ecological impact of the proposal. These assessments include but are not limited to:

- Ecological Impact Assessment (EIA) prepared by Boffa Miskell Ltd, dated 14 November 2019.
- Offset Location Assessment prepared by Wildland Consultants Ltd, dated 12 November 2019.
- Ecological Management Plan (EMP) prepared by Wildland Consultants Ltd, dated May 2020.
- Bat Management Plan, Wildland Consultants 2020
- Pest Animal Management Plan prepared by Envoco, dated May 2021.
- Quantification of Indigenous Terrestrial Vegetation in Fill Areas 2 and 4 prepared by Envoco, dated September 2022

The applicant proposes to provide compensation at a site located to the west of the fill areas, as shown in Figure 8 below. The applicant has commenced planting within this compensation area.

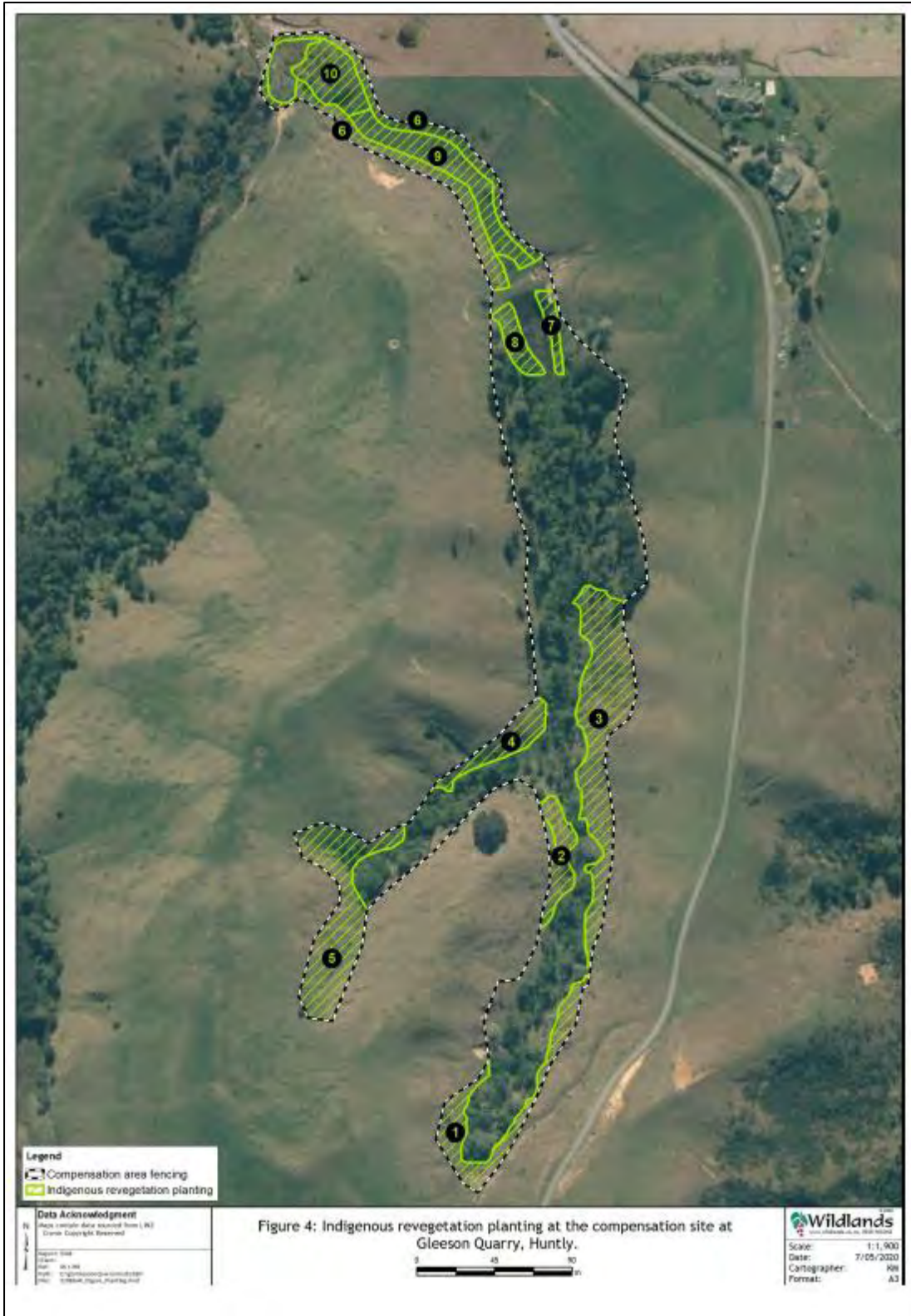


Figure 8: Proposed Compensation Site.

There is a cross over in the matters relevant for consideration by WRC and WDC in terms of ecological effects. To avoid duplication, the assessment presented here is limited to indigenous vegetation loss (terrestrial and wetland), habitat loss and effects on indigenous fauna. I defer to the recommendations of the WRC officer in relation to ecological effects to

wetlands protected by the NESFW and aquatic ecology noting that these are issues appropriate for WRC to consider.

WRC have engaged Papawera Geological Consulting (PGC) to undertake a peer review in relation to ecological matters and to avoid duplication, PGC have also reviewed the application and supporting expert reports for WDC (assessment dated 10 November 2022). As there are a significant number of reports, memos, plans etc from the applicant which provide ecological assessments, I have relied primarily on the PGC peer review. The PGC peer review provides the following summary:

1. *The proposal will result in the loss of 3327 m² of indigenous terrestrial vegetation¹, including riparian vegetation, secondary scrub, and self-established indigenous understory beneath exotic trees², along with 9 mature native trees (two unhealthy), and resultant loss of habitat for common native bird species, long-tailed bats and possibly lizards including copper skinks (At Risk-Declining).*
2. *It will also result in the permanent loss of at least 1869 m² of wetland habitat and some loss of habitat for short-fin eels (not threatened).*
3. *A bat management and monitoring plan has been prepared, and, with a few minor additions, can adequately address the likely potential impacts on long-tailed bats.*
4. *A lizard management plan has not been prepared, but can be included as a condition of consent.*
5. *Earthworks will be undertaken within an SNA, but of an inconsequential scale (digging holes for compensation planting).*
6. *A compensation package is proposed³ that comprises fencing, pest and weed control, 12,109 m² of terrestrial planting, and 2,400 m² of wetland planting (but note 1500 m² of it is within an area of existing native wetland grassland that was mapped in the EMP as exotic grassland).*
7. *Three of the compensation activities (fencing the compensation site, planting and plant pest control within 2,400 m² of the wetland in the compensation site) were offered by the applicant as mitigation for unconsented drainage of Fill Area (FA) 3 which was undertaken prior to this application. I have discounted those activities from my assessment of offsets for FA2, FA4 and the remnants of the FA3 wetland as of 7 June 2022. Some of the mitigation works for FA3 included unconsented spraying of indigenous wetland vegetation and poisoning via drilling > 500 m² of exotic wetland vegetation - potentially in breach of the NES Freshwater Management and regional and district plan rules.*
8. *The residual proposed compensation activities are planting and weed control in terrestrial parts of the compensation site, and animal pest control, which will adequately mitigate the loss of terrestrial vegetation and habitat in the fill areas. Some of these activities had already occurred as of 7 June 2022.*
9. *The proposed compensation package (excluding works completed to mitigate the unconsented FA3 wetland loss) will not mitigate the proposed additional loss of at least 1869 m² of significant wetland in FA2, FA4 and remnants in FA3. No mitigation has been offered for spraying up to 2000 m² of native swamp millet in the compensation area.*
10. *Wetland areas could be created in association with the proposed sediment ponds, which may provide suitable wetland loss offsets.*
11. *Some ecological monitoring for the compensation works is variously proposed in multiple documents including the EIA, the EMP⁴, an Envoco monitoring report, and a separate Envoco*

¹ Envoco, September 2022

² See Figure 1, Appendix 4 of PGC memo

³ Wildlands May 2020

⁴ Wildlands May 2020

*pest animal management plan*⁵. For avoidance of doubt about what will be done, where, when and for how long, these documents should be compiled into a single comprehensive ecological monitoring plan for the compensation area, with a clear monitoring timeframe, and regular (at least annual) reporting to council. This can be included as a condition of consent.

Two matters are identified by the PGC peer review which suggest that works have been undertaken without resource consents first being obtained. These are:

- Clearance of indigenous vegetation as a result of draining of a wetland within Fill Area 3 (in June 2020). The area is not identified as SNA in the PDP and therefore at the time of the works (prior to the decisions on the PDP being notified) they would not have triggered the need for a consent under the PDP.
- Indigenous vegetation (swamp millet) located within the proposed compensation area was sprayed in 2022. This particular area is not within the identified SNA (being located to the north) and therefore would require consent under rule ECO-R11 of the PDP.

In my reading of the information supplied, the applicant acknowledges the need for a retrospective consent for the spraying of swamp millet within the compensation area. However, in relation to the vegetation clearance within Fill Area 3, my understanding is that this was discussed with the WRC in 2020 as a compliance matter (see letter in Appendix 12.7.3 of the application). It is my expectation that the applicant will address this point further in their evidence.

The PGC peer review recommends the following matters should be covered by consent conditions, should consent be granted:

1. *A wetland compensation plan be prepared and implemented that mitigates wetland loss in FA2 and FA4 on a like-for-like basis as proposed in the EIA, i.e. the loss of wetland area be compensated by the creation of an area of indigenous vegetation and open area wetland habitat that is the same or larger extent elsewhere. Said plan should be approved by a suitably qualified ecologist for the council.*
2. *Include a condition of consent that a combined terrestrial and wetland ecological monitoring plan be developed and implemented for the compensation area, including clear methodology, location of monitoring devices/plots and a timeline of monitoring activities including how many years each activity will be conducted for. There should be regular (at least annual) reports sent to Council to be assessed by a suitably qualified ecologist. The Compensation Area Ecological Monitoring Plan should be approved by a suitably qualified ecologist for the council.*
3. *Include a condition of consent to seek formal legal protection for all compensation areas subject to the application, including the bat reserve.*
4. *Include a condition requiring lizard site-specific survey and salvage prior to and during habitat removal, to minimise mortality to any resident population. A suitable relocation site should be identified.*
5. *Incorporate implementation of the Bat Management Plan as a condition of consent with the requirement that it be compliant with best management practice for artificial roost management as outlined in: New Zealand Bat Recovery Group Advice Note – The Use of Artificial Bat Roosts. 18 October 2021. In particular, specify that acoustic surveys be conducted in the appropriate season, that predator exclusion bands surrounding artificial*

⁵ Envoco 2021. Pest Animal Management Plan

roosts be inspected annually and adjusted as needed for 15 years, and that the bat reserve be subject to appropriate legal protection in perpetuity.

In order to satisfy the concerns of the PGC peer review, additional areas of wetland compensation are required to ensure that the loss indigenous vegetation and habitat is adequately mitigated. At present, the proposed activities will result in a net loss of wetland extent which includes wetland vegetation. The PGC peer review identifies opportunities for offsetting the effects of the loss of wetland vegetation and recommends that a condition be imposed on this basis.

Further to this, I note that there appears to be some disagreement between the applicant (including their experts and agent) and the peer reviewer over the area affected unconsented drainage of Fill Area 3. The applicant has assessed this as an area of 700m² but the PGC peer reviewer estimates that pre-drainage, this area was approximately 4ha. This is on the basis of the 2019 description of the site by Boffa Miskell and is consistent with aerial photograph images of the site.

It is my expectation that the applicant will address this matter further in their evidence and in particular will provide specific details of additional compensation to address the shortfall identified in the PGC review and provide clarification around the affected areas.

8.7.1 Submissions on Ecological Effects

The submissions have raised concerns with regard to ecological effects. The matters of relevance to the WDC consents raised within the submissions are summarised as follows:

- Impacts to fauna including birds, lizards and bats
- Habitat loss
- Adequacy of ecological assessments
- Conditions and management plans are unconfirmed
- Vegetation loss

Overall, these matters are generally discussed in the assessment above. However, I consider it appropriate to note that a submission was made by the Department of Conservation (DoC). Their submission raises concern in relation to the adequacy of the ecological assessments, I note that the PGC peer review has also raised concerns that some gaps exist. I share this view, noting that there are a number of different reports on ecological matters, prepared by different experts and some matters are out of date as works have already been undertaken – adding confusion in this space. DoC also identify concerns around the incomplete nature of conditions and management plans, it is considered that these can be finalised via this process (should the consent be granted) to ensure that effects are adequately managed. Recommended conditions should address impacts to fauna. As per the DoC submission, the applicant is reminded of their obligations under the Wildlife Act 1953.

8.7.2 Conclusion on Ecological Effects

On the basis of the conclusions within the PGC peer review, I consider that the effects to fauna (in particular bats and lizards) and terrestrial vegetation loss can be appropriately mitigated to ensure an acceptable effect. In relation to the loss indigenous vegetation and habitat within (non NESFW) wetland, the PGC peer review states that further compensation (beyond that proposed) is necessary in order to mitigate this effect to an acceptable level.

The PGC peer review identifies opportunities for offsetting and recommends that a condition be imposed on this basis.

While the overall activity status of this proposal is Discretionary, the indigenous vegetation clearance under Rule ECO-R16 of the PDP is a Restricted Discretionary Activity. Rule ECO-R16 is subject to appeal and therefore has legal effect but cannot be considered to be operative. It is appropriate to note the assessment criteria for these activities as this identifies the crucial areas for consideration in assessing the effects. I have set out these matters in the following table and assessed each matter.

Table 11: Assessment Against Restricted Discretionary Matters of Discretion - ECO-R16

PDP Rule ECO-R16 Matters of Discretion	Comments
<i>The extent to which the clearance will result in the fragmentation and isolation of indigenous ecosystems and habitats;</i>	The PGC peer review notes that the affected areas are in blind gully headwaters and are not currently corridors to other natural areas upstream.
<i>The extent to which the clearance will result in loss, damage or disruption to ecological processes, functions and ecological integrity, including ecosystem services;</i>	The implementation of compensation works (including fencing, pest and weed management and planting) along with Bat Management and Lizard Management Plans will go some way towards mitigating the effect to ecological processes and function.
<i>The cumulative effects of the vegetation clearance;</i>	There is the potential for an adverse cumulative effect noting that the PGC peer review has determined that the loss of indigenous vegetation and habitat within (non NESFW) wetlands is not adequately offset by the proposal. Therefore, additional compensation is recommended to avoid an adverse cumulative effect.
<i>The extent to which the clearance affects Tangata Whenua relationships with indigenous biodiversity on the site;</i>	Cultural effects are discussed in sections 8.11 below.
<i>The extent to which the indigenous biodiversity contributes to natural character and landscape values, including in areas of outstanding natural character, outstanding natural features, outstanding natural landscapes and significant amenity landscapes; and</i>	The fill areas are not identified in the PDP maps as having outstanding natural character or within an area of outstanding natural features, outstanding natural landscapes and significant amenity landscapes. The site is highly modified due to the presence of the quarry. Therefore, their value in terms of natural character is limited.
<i>The extent to which adverse effects have been avoided, remedied, mitigated or if this is unable to be achieved, the extent of offsetting on significant residual adverse effects</i>	The key concern within the PGC peer review is that the loss of indigenous vegetation and habitat within (non NESFW) wetlands is not adequately offset and therefore additional compensation is recommended. Despite this, I note that impacted area is not “significant” noting that various expert assessments identify that the area is highly modified and indigenous vegetation is interspersed with exotic species. This is

	reinforced by the fact that the area is not identified as SNA within the PDP planning maps.
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On the basis of the above, it is my conclusion the ecological effects of the proposal will be acceptable on the basis of compliance with suitable conditions. In particular this includes the need for additional areas of wetland compensation via a compensation plan that mitigates wetland vegetation loss in Fill Area 2 and Fill Area 4 on a like-for-like basis. It is my expectation that the applicant will address this matter further in their evidence and in particular will provide specific details of additional compensation to address the shortfall identified in the PGC review.

8.8 Land Stability Effects

Geotechnical assessments have been provided in support of the application prepared by Gaia Engineers (Gaia). In particular this includes a Geotechnical Assessment dated November 2019. This has been reviewed of behalf of WRC by Baseline Geotechnical (Baseline) dated 29 May 2022. The Gaia assessment concludes that the Fill Areas are geotechnically suitable for the proposed fill activity and the Baseline peer review agrees that acceptable levels of stability should be achievable. I note that the draft SFMP which the applicant proposes to be finalised via a consent condition includes provision for geotechnical designs to be certified by WRC and WDC before commencement of works.

8.8.1 Submissions on Land Stability

Submitters have raised concerns in terms of the potential for land instability as follows:

- Fill Area 3 (a former tailings/overburden area) should not be disturbed
- Potential for landslips
- Geotechnical investigations not adequate

I note that the investigation undertaken by the expert and the proposed condition concludes that all of the Fill Areas can achieved acceptable stability and as noted, further certification will be required by Council. In terms of the adequacy of the assessments, I note that the Baseline peer review stated that the Gaia design reports (which are limited to Fill Area 2 and 3) “provide a higher level of design information than would normally be expected at the consent stage”. The application states that detailed design for Fill Area 4 will be informed by the outcomes for Fill Areas 2 and 3.

8.8.2 Summary of Land Stability Effects

Overall, I consider the land stability effects of the proposal will be no more than minor subject to the imposition of and compliance with conditions of consent (as per Appendix M) requiring final geotechnical designs to be certified by Council before commencement of works.

8.9 Contaminated Land Effects

Fill Area 3 is identified as containing a piece of land as described by regulation 5(7) of the NESCS and therefore the NESCS applies to the soil disturbance activity associated with the site development. A combined PSI and DSI was prepared by EHS Support (EHS) dated 31

August 2021 along with a CSMP also prepared by EHS and dated 1 September 2021. This has been peer reviewed by Mr Alan Parkes, Council's Contaminated Land Specialist.

The PSI/DSI prepared by EHS states that the site investigation shows:

“that coal mine tailings and overburden material from the neighbouring former mine operation had been deposited in the northern half of the FA3 area (HAIL category E7 – storage of hazardous waste dumps or dam tailings). However, results of the DSI show that concentrations of contaminants in soil samples were above the published background concentrations but were well below the SCS [Soil Contaminant Standards] for commercial/industrial end use.”

On this basis, a CSMP has been prepared by EHS. This sets out the procedures to manage ground contamination effects on human health and the environment during disturbance activities associated with proposal.

Mr Parkes has reviewed the CSMP and in general is satisfied that it is suitable. He notes that the PSI/DSI results states that the contaminated soil is likely to meet the acceptance criteria for managed fill which would allow it to be accepted on site – i.e. that it will not need to be transferred to an offsite disposal facility. However, this is subject to additional testing for Arsenic, Boron, Copper, Lead, Nickel, Thallium and Zinc. In section 5.2.2 of the CSMP, excavated/stripped soil is to be loaded directly onto trucks and must not be stockpiled unless the loading is in an area where runoff and spills can be controlled. Stockpiling procedures are outlined in section 5.2.3 of the CSMP.

Mr Parkes considers this appropriate but notes that clarification may need to be given around staging, noting that stockpiling may be unavoidable should an on site fill area not be ready to receive material. This can be addressed within the CSMP and it is expected that EHS will provide further clarification on this point in their evidence. This matter can also be resolved through an update to the CSMP.

Overall, Mr Parkes has recommended conditions as follows:

- All soil disturbance to be undertaken in accordance with the approved CSMP
- All material removed from the site in the course of the soil disturbance works shall be disposed to a suitably licensed facility
- Within three months of soil disturbance works being completed, the consent holder shall provide a works completion report

The submissions raise a number of issues in relation to contamination matters. However, these are primarily related to concerns around contaminants with the fill material itself. It is considered that the assessment above adequately assesses the potential effects of soil disturbance of contaminated soil and the potential effects to human health. The effects are accordingly no more than minor on the basis of compliance with the recommended conditions, should the panel determine it appropriate to grant consent. I note that effects with regard to the deposit of contaminants to land (i.e. the fill material) are assessed by WRC.

8.10 Stormwater and Erosion and Sediment Control Effects

The nature of the fill activity is such that the works will require erosion and sediment controls as well as stormwater management to avoid contamination of waterways. Specific consents from WRC are required as outlined in section 1.2 of this report.

The applicant has provided Erosion and Sediment Control Plans (ESCPs) for the site prepared by Southern Skies Environmental Ltd (SSE). On behalf of Council's Development Engineer, a peer review of the ESCPs has been provided by Beca Ltd (Beca). This notes the following:

"The sediment retention ponds, in combination with extensive monitoring of both the pond itself and the downstream environment, means it is unlikely that degradation in the water quality in the downstream tributaries. Furthermore, one of the greatest risks to downstream water quality is increased sediment inputs. The likelihood of this is significantly decreased by using sediment retention ponds with chemical flocculation treatment.

Clarification is required with the sizing of the dirty water catchments. The maximum catchment sizes for Fill areas 2 and 4 are larger than the catchment sizes used to determine volumes for the sediment retention ponds."

Should the consents be granted, appropriate conditions can be included to ensure that the ESCPs are implemented. It is expected that certification of the final design will be a requirement of the WRC consents.

A Stormwater Management Plan is not provided for the site. This is noted by the peer review provided by Beca. As a result, the applicant was asked to provide a comprehensive stormwater management report. No such report was provided but some further commentary was supplied. The Beca peer review states:

"I consider this to be a gap in the application and do not believe that the applicant has adequately assessed the below issues:

- *The downstream environment. I refer to erosion and scour risk resulting from an increase in flow at the sediment retention ponds (SRPs) outlets and the clean water diversion channels that act to concentrate flows. The erosion and sediment control plan (ESCP) specified that outlet protection will be installed at all outlets and inlets, however this does not necessarily equate to downstream protection without further detail and assessment. I would expect the applicant to evaluate the likelihood of downstream erosion and scour, based on the current state of both watercourses and the expected increase in channel flow. At the very least rip rap will be needed at outlets. It is possible for this to be partially addressed through a consent condition, including a implementing a scour monitoring program of the downstream areas and a condition to remediate scour.*
- *The applicant has noted that there will be some attenuation effect provided by the SRPs. More detail on this is required which could be in the form of a catchment analysis, for existing and for active filling scenarios. It is likely that this will be acceptable but needs to be assessed by the applicant nonetheless.*
 - *I have undertaken a brief percentage contribution calculation of the Fill area catchments to the larger catchments that drain to the lake and river. Fill Area 2 contributes 2% of the catchment draining to Lake Puketirini, and Fill Area 4 is contributes 13% of the catchment draining into the Waikato River.*
- *The effects of climate change in the design of diversion channels and the SRPs. This must be included in future detailed design regardless of the temporary nature of the structures. The time horizon can be scaled to the design life of the devices.*

In addition to the above, I do not feel that the applicant has provided sufficient information on the treatment and holding of stormwater discharged from the acid sulphate treatment area. The gaps are:

- *Whether climate change factors were included for sizing. This is still required even if the pond is designated to be a temporary structure. Again, set to a horizon matching the design life involved.*
- *The expected discharge rate and route the treated water will take back to the quarry pit. No comment was provided on whether attenuation is required, channel or pipe grading and erosion/sediment protection at inlet and outlet structures.*
- *No contingency procedures were supplied in the report i.e. what happens if the soil is over-dosed? How will pH be corrected soil/runoff becomes too alkaline? pH can have a strong effect on the ionic availability of a range of chemicals to sediment; poor management could cause the dispersion of contaminated water as surface runoff.*
- *Why was the quarry pit selected as a suitable discharge point for treated runoff? Was the potential for pumping to the SRPs considered?*

Note that water management from the acid sulphate treatment area crosses directly into environmental science which is not strictly the responsibility of Beca nor perhaps WDC to assess. However, I feel that the connection with stormwater management justifies further explanation of the above concerns.”

The above matters are relevant consent issues and there is cross over with the WRC consents. In particular, (and as recognised by the Beca peer review comments), the issues around water management from the acid sulphate treatment relate to water quality effects which is not a District Council matter. A copy of the Beca peer review has been provided to WRC who will draw conclusions with regard to effects resulting from the stormwater discharge consents.

To provide context to the stormwater environment in relation to WDC consent matters, I note that there is no WDC owned/managed stormwater infrastructure located on the site and the proposal does not seek to direct stormwater to WDC’s network. The objectives and policies of the PDP focus on effects to Council’s network and ensuring that adequate infrastructure is in place. The value of a stormwater management plan is recognised (particularly for urban development) and effects related to stormwater flows to adjoining property are to be avoided.

On the basis of the comments from the Beca peer review, the lack of a site wide stormwater management plan has been identified as a gap within the information and therefore I cannot conclude that stormwater will be appropriately managed.

8.10.1 Summary of Submissions on Stormwater and Erosion and Sediment Control Effects

Submitters have raised concerns relevant to Stormwater and Erosion and Sediment Control effects:

- Downstream water quality and hydraulic effects (primarily to Lake Puketirini and the Waikato River)
- On site runoff quality control
- Downstream erosion and sediment release, effects of climate change
- Flooding due to increase in runoff

- Runoff of debris from road to river
- Adequacy of sediment retention ponds (volume) and liners (synthetic and clay)

These matters are largely relevant to the WRC consents, particular those related to water quality. I note that commentary around management of debris deposited on the road is discussed in section 8.2 above.

8.10.2 Summary of Stormwater and Erosion and Sediment Control Effects

Overall, I conclude that erosion and sediment control effects are acceptable subject to consent conditions. However, the lack of a site wide stormwater management plan has been identified as a gap within the information and therefore there is potential for an unacceptable stormwater effects.

8.11 Productive Capability Effects

The subject site is within the General Rural Zone under the PDP, although Fill Area 2 is also within the Aggregate Extraction Area. The PDP notes that the purpose of the General Rural Zone is to provide predominantly for primary production activities. However, it also recognises that it provides for other “occasional” activities such as quarrying, which the wider site contains. Primary production activities typically rely on the soil resource within the rural environment.

A review of the New Zealand Land Resource Inventory has identified that the wider site (including the site to the west where compensation activities are to occur) contains soils with a Land Use Capability (LUC) ranging between 4 and 7, with the fill areas being located in an area with a LUC of 6. The definition of high class soils in the PDP includes those with a LUC of 1 to 3. By comparison, a site with soils of LUC 6 is limited in its ability to be used for primary production purposes.

On this basis, the presence of the existing quarry activity and the Aggregate Extraction Area overlay for part of the site, it is my opinion that the impact to the productive capability of the site is already limited and any effect will be acceptable.

8.12 Cultural Effects

Submissions relevant to cultural effects have been received by WDC. The following points are raised:

- Lack of consultation with mana whenua
- Inconsistent with the Waikato Tainui Environment Plan, particularly Chapter 6 (consultation and engagement)
- Proximity to Waikato awa which is a taonga
- The Waikato awa and Raahui Pookeka should be restored. Place where fishing families gathered
- The mana and mauri o te wai, the whenua, flora, fauna and people will not be enhanced.
- Impacts on hauora of people
- Te Kauri Marae speak for themselves (not Waahi Whaanui Trust)

No submissions were received by WDC from Waahi Whaanui Trust or Waikato Tainui.

In terms of consultation, I note my earlier comments in section 8.1.3 with regard to an applicant's obligation to undertake consultation. Appendix 17 of the application includes the applicant's record of consultation and includes a Cultural Impact Assessment (CIA) from the Waahi Whaanui Trust dated September 2020. This CIA is superseded by a letter opposing the proposal (dated August 2021) and therefore no consideration has been given to the CIA.

With regard to the potential for contamination of the Waikato River and water in general, this is a matter which is more appropriately considered in relation to the WRC discharge consents, as well as any potential adverse health impacts that may arise from the discharge of contaminants.

In terms of the cultural effects resulting from the proposal, in particular the effects to the mana and mauri of water, land, flora, fauna and people from this proposal, it is my opinion that the scale and significance of these effects can only be determined by the affected iwi and hapu.

The land use consent for Fill Area 5 (LUC0176/20) is subject to a Maatauranga Maori Environmental Monitoring Plan. This condition requires the following points that could be replicated in a condition for this proposal:

- Cultural monitoring during topsoil removal;
- Iwi/hapu input into the Closure and Rehabilitation plan;
- Involvement of the iwi/hapu in water quality monitoring;
- Iwi/hapu input into the Dust Management Plan and air discharge monitoring;
- Iwi/hapu input into the Bat Management Plan and Ecological Management Plan.

A condition to this effect is included in the conditions provided in Appendix M of this report. I note that "iwi" is referred to across these conditions. However, it is appropriate that these conditions be updated (should the panel determine that consent be granted) to refer to the correct party(s) with mana whenua as informed by the submitters.

The potential effects on cultural values warrant further consideration at the hearing. I note that the submitters (in particular Te Kauri Marae Trust) who have raised the above submission points related to cultural effects have indicated that they would like to be heard at the hearing or that they would consider presenting a joint case at the hearing. The information presented by these submitters is necessary to determine whether the effects to cultural values can be addressed via a condition such as Maatauranga Maori Environmental Monitoring Plan.

Overall and on the basis of the information provided to date, I consider that unacceptable cultural effects will arise from this activity.

8.13 Archaeological Effects

The application includes an archaeological assessment prepared by Clough and Associates Limited (Clough), dated July 2019. This assessment concludes:

- *"There should be no constraints on the currently proposed works on archaeological grounds, since no archaeological sites are known to be present in the proposed Fill Areas and it is considered unlikely that any will be exposed during development."*

- *As one archaeological site has been recorded in the far northeast corner of the Project Area, any future works, should take account of the location of the recorded archaeological site and ensure that it is avoided.*
- *If subsurface archaeological evidence should be unearthed during construction (e.g. intact shell midden, hangi, storage pits relating to Maori occupation, or cobbled floors, brick or stone foundation, and rubbish pits relating to 19th century European occupation), work should cease in the immediate vicinity of the remains and Heritage NZ and the Council should be notified.*
- *If modification of an archaeological site does become necessary, an Authority must be applied for under Section 44(a) of the HNZPTA and granted prior to any further work being carried out that will affect the site. (Note that this is a legal requirement).*
- *In the event of koiwi tangata (human remains) being uncovered, work should cease immediately in the vicinity of the remains and the tangata whenua, Heritage NZ, NZ Police and Council should be contacted so that appropriate arrangements can be made.*
- *Since archaeological survey cannot always detect sites of traditional significance to Maori, such as wahi tapu, the tangata whenua should be consulted regarding the possible existence of such sites on the property.”*

On the basis of this assessment an accidental discovery protocol condition (as per Appendix M) is recommended should the panel determine it appropriate to grant consent. I note that no site of significance to Maaori (such as waahi tapu) within the site have been identified in the submissions. However, a portion of the site (of approximately 3000m²) in the north eastern corner is identified as forming part of a Site of Significance to Maaori in the PDP. This area is outside of the Fill Areas being approximately 300m from Fill Area 4. Overall, it is concluded that the potential archaeological effects will be acceptable.

8.14 Transmission Effects

A submission was made by Transpower, noting that several Transpower assets are located within close proximity to the site, these being as follows and shown in Figure 9 below.

- The HAM-MER-A 110kV Transmission line and various support structures; and
- The HAM-MER-B 110kV Transmission line and various support structures.

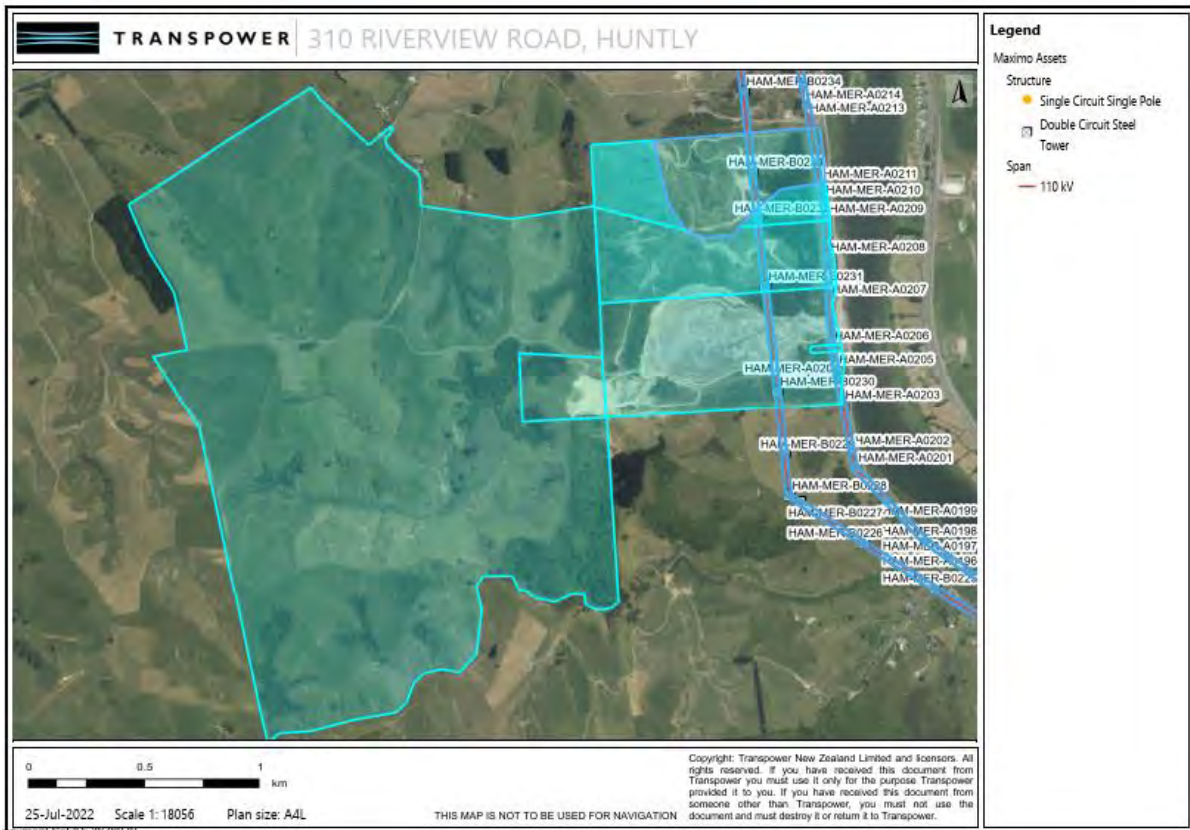


Figure 9: Location of Transpower Assets

It is noted that these assets are located in close proximity to Fill Area 5 which was consented as per LUC0176/20. The Transpower submission notes this but also notes that the indicative internal access roads through the site to the fill areas (including to FA5), are part of the subject application. In particular the submission states:

“it is not possible to confirm the existing horizontal clearance distance from the additional section of the internal access road to FA5 and the proposed FA5 tip head to the HAM-MER-B 110kV National Grid transmission lines, although it appears to be in the order of approximately 20-25m. Additionally, as the available vertical clearance varies along the transmission lines depending on ground levels, without specific details, it is not possible for Transpower to accurately determine ground to conductor heights / clearance in proximity to the transmission line. Transpower is therefore unable to confirm with certainty whether the National Grid assets will be potentially impacted by the proximity of the proposed internal access road to FA5 and the proximity of the tip head to the transmission line.”

Therefore, in order to ensure that the proposal does not result in adverse effects on the National Grid, conditions are requested by Transpower to require:

- Compliance with the New Zealand Electrical Code of Practice for Electrical Safe Distances - NZECP 34:2001
- Machinery and mobile plant to be a minimum of 4 metres from the HAM-MER-B lines.

On the basis of imposition of these conditions, the Transpower submission is neutral. It is my opinion that these conditions are appropriate to ensure that adverse effects to the National Grid are acceptable and are recommended to be included should the panel grant consent.

8.15 Positive Effects

Section 3 of the Act defines the meaning of effects to include positive effects and it is entirely appropriate to consider whether a proposal creates positive effects on the environment (which includes people and communities). Positive effects that result from a proposal can be balanced against any adverse effects that might not be able to be avoided, remedied or mitigated and may outweigh such adverse effects and enable a conclusion to be made for a proposal to be approved.

In my opinion the proposed managed fill facility provides a necessary service which supports development including infrastructure (such as road and rail) and general construction. The disposal of waste products to approved facilities is necessary to enable development. Furthermore, the proposal provides an opportunity for efficiency by allowing the disposal of fill and collection of quarry resource at the same location. In this regard, the proposal gives rise to positive effects.

8.16 Summary of Effects – Proposed District Plan

This section of the report has examined the actual and potential effects of the proposal on the environment. It is my opinion that there is potential for adverse effects to arise in relation to cultural values and that these effects warrant further consideration at the hearing. The information presented by submitters is necessary to determine whether the effects to cultural values can be addressed via a condition such as Maatauranga Maaori Environmental Monitoring Plan. I also note that the lack of a site wide stormwater management plan has been identified as a gap within the information and therefore there is potential for unacceptable stormwater effects to occur.

On the basis of the expert advice, I am satisfied that the remaining actual and potential adverse effects of the proposal will be acceptable subject to compliance with suggested conditions of consent (see Appendix M).

This conclusion is, however, reliant on the Applicant providing clarification on the directional split of trucks to and from the site, the extent of the pine and eucalyptus plantations necessary to screen the fill sites, compensation for loss of wetland vegetation, the need for additional (retrospective) consents for vegetation removal on-site and disposal of contaminated material from Fill Area 3.

9.0 RELEVANT PLAN PROVISIONS – S104(1)(B)

In accordance with section 104(1)(b) of the Act, the following assessment considers the proposal in terms of relevant provisions of policy statements and plans. The focus is to establish if the proposal is consistent with the objectives and policies of relevant plans in addition to consideration of issues, environmental outcomes, rules, explanations and reasons.

9.1 National Environmental Standards

9.1.1 National Environmental Standard for Managing Contaminants in Soil to Protect Human Health

As outlined in section 3.3, a Controlled Activity consent is required with respect to the NESCS. The effects in this regard are assessed in section 8.9 of this report and conditions are recommended.

9.1.2 National Environmental Standard for Freshwater

The NESFW came into force on 3 September 2020 and sets standards for freshwater management under the Act to support improved freshwater management in New Zealand.

The proposal triggers the need for a resource consent as a Non-Complying Activity under the NESFW for the discharge of stormwater within 100 m of a natural wetland. This resource consent has been considered within the suite of consents sought from WRC and is therefore not considered further here.

9.1.3 National Environmental Standard for Air Quality

The Ministry for the Environment states that the primary purpose of the ambient standards is to provide a guaranteed level of protection for the health of all New Zealanders. The ambient standards are the minimum requirements that outdoor air quality should meet in order to guarantee a set level of protection for human health and the environment. The standards are ambient, that is, they apply outdoors. However, there are no air quality guidelines in New Zealand for nuisance dust. Instead, the Ministry for the Environment recommends that dust nuisance be controlled through the use of appropriate management programs. Section 8.5 details how dust effects can be managed to an appropriate level.

9.1.4 National Environmental Standards for Electricity Transmission Activities

As identified within this report, the subject site is traversed by transmission lines which form part of Transpower's national grid. The National Environmental Standards for Electricity Transmission Activities (NESETA) applies only to the operation, maintenance, upgrading, relocation, or removal of an existing transmission line. Therefore, the NESETA does not apply to this proposal.

9.2 National Policy Statements

9.2.1 National Policy Statement for Freshwater Management 2020

The National Policy Statement for Freshwater Management 2020 (NPSFM) provides local authorities with updated direction on how they should manage freshwater under the Act. It came into force on 3 September 2020. The fundamental concept of the NPSFM is “Te Mana o te Wai” which refers to “*fundamental importance of water and recognises that protecting the health of freshwater protects the health and well-being of the wider environment. It protects the mauri of the wai. Te Mana o te Wai is about restoring and preserving the balance between the water, the wider environment, and the community*”.

Every Regional Council is required under section 3.2 of the NPSFM to give effect to Te Mana o te Wai. As outlined in section 1.2 of this report, the activity requires a number of consents from WRC including water discharges and stream diversions. Therefore, the application is assessed in detail in the WRC officers report against the NPSFM.

9.2.2 National Policy Statement for Highly Productive Land

The National Policy Statement for Highly Productive Land (NPSHPL) came into force on 17 October 2022. It requires Regional Council to map highly productive land in their Regional Policy Statement. As this has not yet been completed, a territorial authority must apply the

NPSHPL as if references to highly productive land were references to land that is zoned general rural and has a Land Use Capability (LUC) of 1, 2 or 3. While the subject site is within the Rural Zone/General Rural Zone, a review of the New Zealand Land Resource Inventory has identified the subject site as containing soils with a LUC ranging between 4 and 7. In particular the site where the fill areas are located has a LUC of 6. On this basis, the NPSHPL does not apply.

9.2.3 National Policy Statement on Electricity Transmission

The subject site is traversed by transmission lines which form part of Transpower's national grid. The National Policy Statement on Electricity Transmission (NPSET) came into force on 13 March 2008 and recognises the national grid as a significant physical resource. As discussed in section 8.13, a submission was received from Transpower. Subject to the recommendations outlined in that section, the proposal is consistent with the NPSET.

9.3 Waikato Regional Policy Statements

The Waikato Regional Policy Statement (RPS) became operative on 20 May 2016. The RPS is a high-level broad-based document that provides an overview of the resource management issues in the Waikato region and the ways to achieve integrated management of the natural and physical resources of the region.

9.3.1 Te Ture Whaimana

Te Ture Whaimana o Te Awa o Waikato – the Vision and Strategy for the Waikato River (Te Ture Whaimana) is part of the RPS. The subject site is located within the Waikato River catchment and is in close proximity to the river. Therefore, it is necessary to consider the objectives of the Te Ture Whaimana as outlined in section 1.9.5.2 and provided below:

In order to realise the Vision, the following Objectives will be pursued:

- a. *The restoration and protection of the health and wellbeing of the Waikato River.*
- b. *The restoration and protection of the relationships of Waikato-Tainui with the Waikato River, including their economic, social, cultural, and spiritual relationships.*
- c. *The restoration and protection of the relationships of Waikato River Iwi according to their tikanga and kawa with the Waikato River, including their economic, social, cultural and spiritual relationships.*
- d. *The restoration and protection of the relationships of the Waikato Region's communities, with the Waikato River, including their economic, social, cultural and spiritual relationships.*
- e. *The integrated, holistic and co-ordinated approach to management of the natural, physical, cultural, and historic resources of the Waikato River.*
- f. *The adoption of a precautionary approach towards decisions that may result in significant adverse effects on the Waikato River, and in particular, those effects that threaten serious or irreversible damage to the Waikato River.*
- g. *The recognition and avoidance of adverse cumulative effects, and potential cumulative effects, of activities undertaken both on the Waikato River and within the catchment on the health and wellbeing of the Waikato River.*
- h. *The recognition that the Waikato River is degraded and should not be required to absorb further degradation as a result of human activities.*
- i. *The protection and enhancement of significant sites, fisheries, flora and fauna.*

- j. *The recognition that the strategic importance of the Waikato River to New Zealand's social, cultural, environmental and economic wellbeing, requires the restoration and protection of the health and wellbeing of the Waikato River.*
- k. *The restoration of water quality within the Waikato River so that it is safe for people to swim in and take food from over its entire length.*
- l. *The promotion of improved access to the Waikato River to better enable sporting, recreational, and cultural opportunities.*
- m. *The application to the above of both maatauranga Maaori and the latest available scientific methods.*

When considering this proposal as a whole, I do not consider that it is consistent with Te Ture Whaimana. In particular, a submission from Te Kauri Marae notes the Waikato River is a taonga and that the proposal will not enhance the mana and mauri o te wai.

Objectives a) to d) seek restoration and protection of the river. This is a higher threshold than avoiding, remedying or mitigating effects. Objective h) seeks that the degraded nature of the river be recognised and therefore further degradation should not occur. As considered within section 8 of this report, the physical effects of relevance to the WDC consents can largely be addressed via consent conditions. However, I note that wetlands within the catchment are to be removed rather than restored and while there is potential for these effects to be offset, this has not been quantified as enhancement. There is potential that maatauranga Maaori be provided for via the condition discussed in section 8.11, though there is no agreement with tangata whenua that such a conditions is acceptable or appropriate.

At the time of finalising this report, I was able to review a draft of the WRC officers report where it was concluded that the proposal is contrary to the above objectives of Te Ture Whaimana. I agree with this assessment.

9.3.2 RPS Objectives and Policies

Other matters within the RPS of particular relevance to WDC consents include the following objectives and policies:

Objectives
<p><i>IM-O1 – Integrated management</i></p> <p><i>Natural and physical resources are managed in a way that recognises:</i></p> <ol style="list-style-type: none"> <i>1. the inter-relationships within and values of water body catchments, riparian areas and wetlands, the coastal environment, the Hauraki Gulf and the Waikato River;</i> <i>2. natural processes that inherently occur without human management or interference;</i> <i>3. the complex interactions between air, water, land and all living things;</i> <i>4. the needs of current and future generations;</i> <i>5. the relationships between environmental, social, economic and cultural wellbeing;</i> <i>6. the need to work with agencies, landowners, resource users and communities; and</i> <i>7. the interrelationship of natural resources with the built environment.</i>
<p><i>IM-O2 – Resource use and development</i></p> <p><i>Recognise and provide for the role of sustainable resource use and development and its benefits in enabling people and communities to provide for their economic, social and cultural wellbeing, including by maintaining and where appropriate enhancing:</i></p> <ol style="list-style-type: none"> <i>1. access to natural and physical resources to provide for regionally significant industry and primary production activities that support such industry;</i>

<ol style="list-style-type: none"> 2. the life supporting capacity of soils, water and ecosystems to support primary production activities; 3. the availability of energy resources for electricity generation and for electricity generation activities to locate where the energy resource exists; 4. access to the significant mineral resources of the region; and 5. the availability of water for municipal and domestic supply to people and communities.
<p>IM-O7 – Relationship of tangata whenua with the environment The relationship of tangata whenua with the environment is recognised and provided for, including:</p> <ol style="list-style-type: none"> 1. the use and enjoyment of natural and physical resources in accordance with tikanga Māori, including mātauranga Māori; and 2. the role of tangata whenua as kaitiaki
<p>IM-O8 – Sustainable and efficient use of resources Use and development of natural and physical resources, excluding minerals, occurs in a way and at a rate that is sustainable, and where the use and development of all natural and physical resources is efficient and minimises the generation of waste.</p>
<p>IM-O9 – Amenity The qualities and characteristics of areas and features, valued for their contribution to amenity, are maintained or enhanced.</p>
<p>AIR-O1 – Air Quality Air quality is managed in a way that:</p> <ol style="list-style-type: none"> 1. ensures that where air quality is better than national environmental standards and guidelines for ambient air, any degradation is as low as reasonably achievable; 2. avoids unacceptable risks to human health and ecosystems, with high priority placed on achieving compliance with national environmental standards and guidelines for ambient air; and 3. avoids, where practicable, adverse effects on local amenity values and people’s wellbeing including from discharges of particulate matter, smoke, odour, dust and agrichemicals, recognising that it is appropriate that some areas will have a different amenity level to others.
<p>LF-O3 – Riparian areas and wetlands Riparian areas (including coastal dunes) and wetlands are managed to:</p> <ol style="list-style-type: none"> 1. maintain and enhance: <ol style="list-style-type: none"> a. public access; and b. amenity values. 2. maintain or enhance: <ol style="list-style-type: none"> a. water quality; b. indigenous biodiversity; c. natural hazard risk reduction; d. cultural values; e. riparian habitat quality and extent; and f. wetland quality and extent.
<p>ECO-O1 – Ecological integrity and indigenous biodiversity The full range of ecosystem types, their extent and the indigenous biodiversity that those ecosystems can support exist in a healthy and functional state.</p>
<p>Policies</p>
<p>IM-P1 – Integrated approach An integrated approach to resource management will be adopted that:</p> <ol style="list-style-type: none"> 1. recognises the inter-connected nature of natural and physical resources (including spatially and temporally) and the benefits of aligning the decisions of relevant management agencies across boundaries;

<ol style="list-style-type: none"> 2. maximises the benefits and efficiencies of working together; 3. recognises the multiple values of natural and physical resources including ecosystem services; 4. responds to the nature and values of the resource and the diversity of effects (including cumulative effects) that can occur; 5. maximises opportunities to achieve multiple objectives; 6. takes a long-term strategic approach which recognises the changing environment and changing resource use pressures and trends; 7. applies consistent and best practice standards and processes to decision making; and 8. establishes, where appropriate, a planning framework which sets clear limits and thresholds for resource use.
<p><i>IM-P3 – Tangata whenua</i> <i>Tangata whenua are provided appropriate opportunities to express, maintain and enhance the relationship with their rohe through resource management and other local authority processes.</i></p>
<p><i>IM-P5 – Maintain and enhance areas of amenity value</i> <i>Areas of amenity value are identified, and those values are maintained and enhanced. These may include:</i></p> <ol style="list-style-type: none"> 1. areas within the coastal environment and along inland water bodies; 2. scenic, scientific, recreational or historic areas; 3. areas of spiritual or cultural significance; 4. other landscapes or seascapes or natural features; and 5. areas adjacent to outstanding natural landscapes and features that are visible from a road or other public place.
<p><i>AIR-P3 – Manage adverse effects on amenity</i> <i>Ensure discharges to air are managed so as to avoid, remedy or mitigate objectionable effects beyond the property boundary.</i></p>
<p><i>ECO-P1 – Maintain or enhance indigenous biodiversity</i> <i>Promote positive indigenous biodiversity outcomes to maintain the full range of ecosystem types and maintain or enhance their spatial extent as necessary to achieve healthy ecological functioning of ecosystems, with a particular focus on:</i></p> <ol style="list-style-type: none"> 1. working towards achieving no net loss of indigenous biodiversity at a regional scale; 2. the continued functioning of ecological processes; 3. the re-creation and restoration of habitats and connectivity between habitats; 4. supporting (buffering and/or linking) ecosystems, habitats and areas identified as significant indigenous vegetation and significant habitats of indigenous fauna; 5. providing ecosystem services; 6. the health and wellbeing of the Waikato River and its catchment; 7. contribution to natural character and amenity values; 8. tangata whenua relationships with indigenous biodiversity including their holistic view of ecosystems and the environment; 9. managing the density, range and viability of indigenous flora and fauna; and 10. the consideration and application of biodiversity offsets.
<p><i>ECO-P3 – Collaborative management</i> <i>Maintaining and enhancing indigenous biodiversity shall be promoted in an integrated and efficient manner including by working collaboratively with landowners, resource managers, tangata whenua and other stakeholder</i></p>
<p><i>HCV-P2 – Relationship of Māori to taonga</i> <i>Recognise and provide for the relationship of tangata whenua and their culture and traditions with their ancestral lands, water, sites, wāhi tapu and other taonga.</i></p>

UFD-P5 – Access to minerals

Management of development of the built environment appropriately recognises:

- 1. the potential for impacts of subdivision, use and development on access to mineral resources;*
- 2. the need for mineral resources to be available for infrastructure and building developments;*
- 3. the potential benefits of further development of the region's minerals and providing for the continued operation of existing lawfully established mineral extraction activities;*
- 4. the need to manage the adverse effects of extraction, which may include avoiding mineral extraction, or certain types of mineral extraction, in some areas;*
- 5. the potential for land use development that is inconsistent with nearby mineral extraction activities; and*
- 6. that some mineral resources are considered taonga or traditional resources by tangata whenua.*

Having regard to the above matters, it is my view that:

- The proposal acknowledges the need for integrated management of resources. As considered in section 8, the potential adverse effects of the proposal are considered and mitigation offered. The activity includes links to the quarrying activity onsite (with the inclusion of overburden disposal) and provides an opportunity for efficiency by allowing the disposal of fill and collection of quarry resource at the same location.
- The proposal has the potential to impact upon tangata whenua's relationship with the environment and exercise of kaitiakitanga. A condition is suggested within the assessment in section 8.11 which might provide opportunities for iwi/hapu input to maintain this relationship. However, further information from tangata whenua is necessary in order to understand whether this condition is adequate and therefore to establish consistency with objective IM-O7 and policies IM-P3 and HCV-P2.
- Amenity values can be maintained via the compliance with recommended conditions including dust management.
- The effects on indigenous biodiversity and ecosystems outside is considered in detail in section 8.7 above. Of concern for the WDC consents is the conclusion that the loss of indigenous vegetation and habitat within (non NESFW) wetlands is not adequately offset. The implementation of compensation works (including fencing, pest and weed management and planting) along with Bat Management and Lizard Management Plans will go some way towards mitigating the loss of ecological values. Objective LF-O3 seek the values (aside from access and amenity) of riparian areas and wetlands and indigenous biodiversity to be maintained or enhanced. Whereas objective ECO-O3 seeks promotion of maintaining and enhancing indigenous biodiversity and policy ECO-P1 seeks positive outcomes and no net loss at a regional scale. Therefore, to ensure that proposal is not contrary with this aspect of the RPS, additional areas of wetland compensation via a compensation plan is necessary and can be required via consent conditions.

Based on the above assessment, it is my opinion that that the proposal (subject to the imposition of conditions as per Appendix M), is generally consistent with the RPS except in relation to tangata whenua values.

In addition to the above, an assessment of the application in relation to the necessary regional consents will be provided WRC officers report.

9.4 Waikato Regional Plan

The Waikato Regional Plan contains policies and methods to manage the natural and physical resources of the Waikato region. The plan implements the Regional Policy Statement.

The Applicant has applied to WRC for consents for the proposal. Through her assessment of the applications for WRC consents, Ms Emma Cowan, WRC Consents Officer will advise on the compliance of the proposal with the Waikato Regional Plan in relation to land and soils, air, water, and ecology.

9.5 Proposed District Plan

Assessments of this proposal against the relevant PDP objectives and policies are provided below. There are appeals against most of the relevant objectives and policies and at the time of writing this report, no appeals have been resolved. For information purposes, I have identified below if no appeals exist.

I note that since the lodgement of this application, Variation 3 (Enabling Housing Supply) to the PDP has been notified and submissions closed on 28 October. This variation has no impact upon the objectives and policies relevant to this proposal.

9.5.1 Strategic Directions

Objectives	Comment
<p><i>SD-01 Socio-economic advancement. The District has a thriving economy.</i></p>	<p>The application does not identify specific socio-economic benefits of the proposal. However, the managed fill facility provides a necessary service which supports development within the district in that the disposal of waste products to approved facilities is a necessary service. The proposal is consistent with this objective.</p>
<p><i>SD-02 Tangata whenua. Tangata whenua's relationships, interests, including commercial interests, and associations with their culture, traditions, ancestral lands, waterbodies, sites, areas and landscapes, and other taonga are recognised and provided for.</i></p>	<p>The proposal has the potential to impact upon tangata whenua's relationship with taonga such as the river. This effect is identified in the submissions, as well as effects to the mana and mauri o te wai, the whenua, flora, fauna and people. As relevant to the WDC consents, the physical effects on these element has been assessed and conditions are recommended.</p> <p>A condition is suggested within the assessment in section 8.11 which could provide opportunities for iwi/hapu input, including:</p> <ul style="list-style-type: none"> • Cultural monitoring during topsoil removal; • Iwi/hapu input into the Closure and Rehabilitation plan;

	<ul style="list-style-type: none"> • Involvement of the iwi/hapu in water quality monitoring; • Iwi/hapu input into the Dust Management Plan and air discharge monitoring; • Iwi/hapu input into the Bat Management Plan and Ecological Management Plan. <p>Adherence to this condition provides an opportunity to recognise and provide tangata whenua with the ability to maintain their relationship with the site and their taonga. However, additional information is required from tangata whenua to identify whether such a condition is acceptable to ensure that their relationship with taonga is recognised and provided for. Until this information is provided, I am unable to determine whether the activity is consistent with this objective.</p>
<p><i>SD-07 Regionally significant infrastructure and industry.</i> <i>Recognise the importance of regionally significant infrastructure and regionally significant industry.</i></p>	<p>The application notes that the fill sites can “be regarded as regionally significant and important for the future development and growth of infrastructure (and associated activities) within the Waikato Region”. I agree with this assessment as disposal of waste products is a necessary service. Furthermore, as per the assessment in section 8.13, with the imposition of conditions, the activity will not compromise the National Grid. The proposal is consistent with this objective.</p>
<p><i>SD-09 Rural activities.</i> <i>The rural environment provides for a range of rural activities, including primary production and food supply.</i></p>	<p>Recognition of extractive activities being located within the rural environment is provided in objective GRUZ-O3. The subject site contains the Gleeson quarry which is a lawfully established activity located in the General Rural Zone. The proposal will allow the continued operation of the quarry by providing for overburden disposal alongside the proposed managed fill activity. The proposal will not constrain productive rural activities occurring on surround sites. On this basis, the proposal is consistent with this objective.</p>

9.5.2 All Infrastructure

Objectives	Comments
<i>AINF – O1 Development, operation and maintenance of infrastructure.</i>	Onsite infrastructure (such as sediment retention ponds) are considered to be

<p><i>Infrastructure is developed, operated, maintained and upgraded to enhance social, economic, cultural and environmental well-being</i></p>	<p>necessary to mitigate the effects of the activity. However, the Beca peer review has identified the need for a site wide stormwater management plan and the application does not demonstrate that adequate stormwater infrastructure is provided. Therefore, the proposal is not consistent with objective AINF-O1 and policies AINF-P25, AINF-P26 and AINF-P28</p> <p>The proposal is consistent with the remaining objectives and policies.</p> <p>The activity will not compromise the functioning of the National Grid provided the conditions as noted in section 8.13 are imposed.</p> <p>Section 8.2 of this report details my assessment of traffic effects (which is informed by expert opinion), whereby I conclude that a safe and efficient network can be maintained on the basis of imposition of conditions of consent as recommended. This includes a conditions to prevent debris from being tracked onto the road and a circulation and loading management plan to avoid, remedy and mitigate effects to the network.</p>
<p>AINF-O4 <i>National Grid.</i> <i>The national significance of the National Grid is recognised, and protected and provided for.</i></p>	
<p>AINF- O8 Land transport network. (1) <i>An integrated land transport network where:</i> (a) <i>All transport modes are accessible, safe and efficient; and</i> (b) <i>Adverse effects from the construction, maintenance, upgrading and operation of the transport network are avoided, remedied or mitigated;</i> (c) <i>Strategic road and rail corridors play an important role in the district for facilitating the movement of inter and intra-regional freight; and</i> (d) <i>There is an effective and efficient land transport system that enhances economic well-being, and supports growth and productivity within the Waikato region and upper North Island.</i></p>	
<p>Policies</p>	
<p>AINF-P1 <i>Development, operation and maintenance.</i> (1) <i>Provide for the development, operation, maintenance, repair, replacement, upgrading and removal of infrastructure throughout the district by recognising:</i> (a) <i>Functional and operational needs;</i> (b) <i>Location, route and design needs and constraints;</i></p>	
<p>AINF-P19 <i>Adverse effects on the National Grid.</i> (1) <i>Manage subdivision, use and development to the extent reasonably possible so that the operation, maintenance, upgrading and development of the National Grid is not compromised by ensuring that:</i> (a) <i>The National Grid is identified on the planning maps and the National Grid Yard and National Grid Subdivision Corridor establish buffer distances for</i></p>	

<p><i>managing land use development and subdivision near the National Grid;</i></p> <p><i>(b) Land uses (including sensitive land uses) and structures that may compromise the National Grid, including intensive farming activities, are excluded from establishing within the National Grid Yard;</i></p>	
<p><i>AINF-P25 Provide adequate infrastructure.</i> <i>Ensure adequate provision of infrastructure, including land transport networks, where land is subdivided creating one or more additional lots, excluding reserve or non-housing conservation lots, access and utility allotments, or its use is significantly changed or intensified, needing additional or upgraded infrastructure.</i></p>	
<p><i>AINF-P26 Infrastructure location and services.</i> <i>(1) Ensure subdivision, use and development are provided with infrastructure and services to a level that is appropriate to its location and intended use including:</i></p> <p><i>(a) Three waters (water, wastewater and stormwater management);</i> <i>(b) Telecommunication services;</i> <i>(c) Electricity services; and</i> <i>(d) Adequate water supply within urban areas for firefighting purposes.</i></p>	
<p><i>AINF-P28 Stormwater, drainage and flood management</i> <i>(1) Ensure that stormwater and drainage infrastructure for subdivision, land use and development:</i></p> <p><i>(a) Adopts, where appropriate, a best-practice low impact design approach to the management of stormwater;</i> <i>(b) Manages stormwater in accordance with a drainage hierarchy, with a preference for at-source management;</i> <i>(c) Minimises impervious surfaces to reduce stormwater run-off;</i> <i>(d) Retains pre-development hydrological conditions as far as practicable;</i> <i>(e) Does not increase the flow of stormwater runoff onto adjoining</i></p>	

<p><i>properties adjacent land or flood plains, or reduce storage capacity on-site;</i></p> <p><i>(f) Provides a stormwater catchment management plan for future urban development; and</i></p> <p><i>(g) Promotes clean water reuse and groundwater recharge where practicable;</i></p> <p><i>(h) Avoids, remedies or mitigates the generation of contaminants from urban development; and</i></p> <p><i>(i) Is supported by a stormwater management plan.</i></p>	
<p><i>AINF-P29 Construction, maintenance, upgrading and operation of the land transport network.</i></p> <p><i>(1) Provide for the construction, maintenance, upgrading and operation of an efficient, effective, integrated, safe, resilient, accessible and sustainable transport network through:</i></p> <p><i>(a) Corridor, carriageway and intersection design which is appropriate to the road function as specified in the road hierarchy and in accordance with relevant guidelines;</i></p> <p><i>(b) The appropriate design and location of sites' accesses;</i></p> <p><i>(c) Traffic signage, road marking, lighting, rest areas and parking as appropriate;</i></p> <p><i>(d) Safe and accessible provision for pedestrians and cyclists to maximise accessibility, including off-road facilities and connections;</i></p>	
<p><i>AINF-P30 Road hierarchy and function.</i></p> <p><i>(3) Protect the function of roads as identified in the road hierarchy from the adverse effects of subdivision, use and development.</i></p>	
<p><i>AINF-P31 Road standards.</i></p> <p><i>Ensure that the construction and operation of roads is consistent with their function in the road hierarchy.</i></p>	

9.5.3 Contaminated Land

There are no appeals in relation to the following objectives and policies.

Objectives	Comments
<p><i>CL-OI Contaminated land.</i> <i>The subdivision, use and development of contaminated land is managed to prevent, as far as possible, and, in any event reduce to acceptable levels, the risks to human health and safety and the environment.</i></p>	<p>As per my assessment in section 8.9 of this report (informed by the expert assessments), the risks associated from contaminated land within Fill Area 3 can be managed appropriately with the imposition of suitable conditions. On this basis the proposal is consistent with these objectives and policies.</p>
<p>Policies</p>	
<p><i>CL-PI Managing the use of contaminated land.</i></p> <ol style="list-style-type: none"> <li>(1) <i>Contaminated land is managed (which may include remediation) to ensure that contaminants are at a level acceptable for the proposed land use.</i> <li>(2) <i>Disposal of contaminated soil is carried out in a manner that avoids adverse effects on human health and safety or on the environment.</i> <li>(3) <i>Use or development of contaminated land does not damage or destroy any contaminant containment works, unless comparable or better containment is provided, or monitoring demonstrates that the containment is no longer required.</i> <li>(4) <i>Ensure that contaminated land management approaches associated with the use, subdivision and development of actual or potentially contaminated land includes, to the extent necessary:</i> <ol style="list-style-type: none"> <li>(a) <i>Site investigations being undertaken prior to any new subdivision or change of land use that could result in an increase in any adverse effects of land contamination;</i> <li>(b) <i>Remedial action plans;</i> <li>(c) <i>Site validation reports; and</i> <li>(d) <i>Site management plans as appropriate for identifying, monitoring and managing contaminated land.</i> <li>(5) <i>All site investigation reports, remedial action plans, site validation reports and ongoing site management plans are prepared in accordance with the Ministry for the Environment's Contaminated Land Management Guidelines #1 and #5, and are provided to both Waikato District Council and</i> 	

Waikato Regional Council for their records.	
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9.5.4 Maori values and Maatauranga Maori

There are no appeals in relation to the objectives and policies below except in relation to MV-P5.

Objectives	Comments
<p><i>MV-01 Recognition of Maori values.</i></p> <p>(1) <i>Maaori values are recognised and mana whenua are able to exercise kaitiakitanga, manaakitanga tikanga and mana whakahaere.</i></p> <p>(2) <i>Recognise that only tangata whenua can determine effects on their values, traditions, resources, waters, sites of significance, waahi tapu, other taonga and taonga species</i></p>	<p>The applicant has sought to recognise tangata whenua by undertaking consultation, and has acknowledged that they are they only party who can determine effects on their values with the AEE. Therefore, the proposal is consistent with objective MV-O1.</p> <p>However, consultation has not resulted in any agreement being reached with tangata whenua and submitters have identified that the proposal will not enhance mauri of the land, water, flora, fauna or people.</p>
<p><i>MV-02 Hononga.</i></p> <p><i>The connections between tangata whenua and their ancestral lands, water, sites of significance, waahi tapu, other taonga and taonga species are protected or enhanced.</i></p>	<p>A maatauranga Maaori monitoring condition is discussed in section section 8.11. Such a condition may be appropriate to address cultural effects and provide for hononga, kaitiakitanga and whataaute ahure. However, as no agreement has been reached, no conclusion on this matter can be drawn.</p>
<p><i>MV-03 Kaitiakitanga.</i></p> <p><i>The exercise of kaitiakitanga by mana whenua is recognised and maintained.</i></p>	<p>Overall, I consider that the proposal is not consistent with these objectives and policies (except for objective MV-O1 as noted).</p>
<p><i>MV-04 Whakaute ahuraa.</i></p> <p><i>Cultural practices and beliefs of mana whenua are respected.</i></p>	
<p><i>MV-05 Tikanga aa-iwi o Waikato me te takiwaa o Waikato.</i></p> <p><i>Recognise the cultural significance of Waikato Takiwaa (district)</i></p>	
Policies	
<p><i>MV-P1 Hononga (relationship between tangata whenua and to nature).</i></p> <p>(1) <i>Recognise the hononga (relationship of between mana whenua and nature) with waters, ancestral lands, sites of significance, waahi tapu, urupaa, maunga and other landforms, mahinga/hauanga kai, and other taonga and taonga species (indigenous flora and fauna), which may include:</i></p> <p>(a) <i>Cultural value assessments and/or cultural impact assessments;</i></p> <p>(b) <i>Accidental discovery protocols;</i></p> <p>(c) <i>Use of mana whenua traditional place names;</i></p>	

<ul style="list-style-type: none"> (d) <i>Protection, enhancement and restoration of mauri;</i> (e) <i>Use of appropriate locally sourced native plant species where practicable;</i> (f) <i>Use of archaeological information including Maaori archaeological information; and</i> (g) <i>Incorporation of traditional or sympathetic Maaori design elements where practicable.</i> 	
<p><i>MV-P2 Kaitiakitanga (stewardship/guardianship).</i></p> <ul style="list-style-type: none"> (1) <i>Enable mana whenua to exercise kaitiakitanga where activities have the potential to adversely affect ancestral lands, water, sites, waahi tapu, and other taonga, which may include:</i> <ul style="list-style-type: none"> (a) <i>Providing for early and ongoing engagement with mana whenua;</i> (b) <i>Providing for kaitiaki involvement in land use and subdivision proposals as a means to uphold mauri and taonga inherited from tuupuna;</i> (c) <i>Acknowledging and providing for the appropriate use of maatauranga Maaori and recognise that iwi, hapuu and whaanau are owners and kaitiaki of maatauranga Maaori; and,</i> (d) <i>Providing opportunities for mana whenua involvement in decision-making on resource consents in relation to Sites and Areas of Significance to Maaori and issues of cultural significance.</i> 	
<p><i>MV-P3 Aahuatanga Motuhake (special features).</i></p> <ul style="list-style-type: none"> (1) <i>Recognise and maintain the cultural significance of wetlands, lakes and other waterbodies, including the Waikato and Waipa awa (rivers), coastal areas of Whaingaroa (Raglan Harbour), Aotea, and Te Puaha o Waikato (Port Waikato).</i> (2) <i>Recognise the historic and contemporary relationships of Ngaa iwi o Tainui to Karioi, Taupiri, Hakarimata Range, Hunua and Pirongia maunga.</i> 	

MV-P4 Recognition of Maaori values.

- (1) *Recognise Maaori values, including the following:*
 - (a) *Kaitiakitanga;*
 - (b) *Manaakitanga;*
 - (c) *Tikanga; and,*
 - (d) *Mana whakahaere.*
- (2) *Recognise that Maaori values will vary across the district and that Maaori values additional to those in (1) above can be identified through engaging with mana whenua at a local level.*

MV-P5 Subdivision, land use and Maaori values.

- (1) *Manage the effects of subdivision and land use on Maaori values, in particular those arising from the following:*
 - (a) *Quarrying industry;*
 - (b) *Waste management facilities;*
 - (e) *Earthworks within the vicinity of the Waikato River and other water bodies within the Waikato River Catchment;*
 - (h) *Modification or clearance of indigenous biodiversity within Significant Natural Areas;*
 - (i) *Activities within identified landscape and natural character areas, on or within the vicinity of maunga and other landforms or sites of cultural significance; and*
- (2) *Manage the effects of subdivision and land use on Maaori values, including by:*
 - (a) *Providing for the opportunity for engagement with mana whenua prior to undertaking activities or applying for resource consent and addressing the outcomes of that engagement;*
 - (b) *Providing the opportunity for mana whenua to assess the effects on Maaori values such as through cultural impact/values assessments;*
 - (c) *Recognising and providing for customary uses of resources including hauanga kai;*

<p>(d) <i>Recognising and providing for maatauranga Maaori, including as expressed through kaitiakitanga and tikanga;</i></p> <p>(e) <i>Recognising that iwi, hapuu and whaanau are owners and kaitiaki of Maatauranga; and,</i></p> <p>(f) <i>Recognising and providing for tangata whenua relationships with ancestral lands, water, sites, waahi tapu and other taonga to be maintained or strengthened.</i></p>	
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9.5.5 Te Ture Whaimana - Vision and Strategy

There are no appeals in relation to TETW-OI.

Objectives	Comments
<p>TETW-OI Achieving Te Ture Whaimana (Vision and Strategy for the Waikato River). The health and well-being of the Waikato River is restored and protected and Te Ture Whaimana o Te Awa o Waikato (the Vision and Strategy for the Waikato River) is achieved.</p>	<p>Within section 9.3.1 above, I conclude that the proposal is not consistent with Te Ture Whaimana. I note that the PDP states that the district plan shall give effect to Te Ture Whaimana.</p>
Policies	
<p>TETW-PI Implementing Te Ture Whaimana (Vision and Strategy for the Waikato River).</p> <p>(I) To restore and protect the health and wellbeing of the Waikato River including by;</p> <p>(a) Identifying and recognising the Waikato River as an Outstanding Natural Cultural Landscape;</p> <p>(b) Acquiring appropriate public access to and along the Waikato River at time of subdivision;</p> <p>(c) Protecting and restoring significant natural areas, riparian margins and wetlands within the catchment;</p> <p>(d) Providing for conservation activities;</p> <p>(e) Protecting waahi tapu, sites and areas of significance to Maaori;</p> <p>(f) Recognising and providing for application of maatauranga Maaori; and</p>	<p>When considering this proposal as a whole and noting the concerns raised within the submissions that the proposal will not enhance the mana and mauri o te wai, it is my opinion that the proposal is not consistent with objective TETW-OI or policy TETW-PI.</p> <p>In particular it is important to note that these objectives and policies seek restoration and protection of the health and well-being of the river, which is of vital importance given the proximity of the site to the river.</p> <p>As considered within section 8 of this report, the physical effects of relevance to the WDC consents can largely be addressed via consent conditions. However, I note that wetlands within the catchment are to be removed rather than restored. There is potential that maatauranga Maaori be provided for via the condition discussed in section 8.11, though there is no agreement with tangata whenua that such a conditions is acceptable or appropriate.</p>

<p>(g) Managing the effects of subdivision, use and development including those associated with:</p> <ul style="list-style-type: none"> (i) Building in river setbacks; (ii) Intensive farming; (iii) Earthworks and land disturbance; and (iv) Subdivision. 	
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9.5.6 Natural Features and Landscapes

Objectives	Comments
<p><i>NFL-O1 Outstanding Natural Features and Landscapes.</i> <i>Outstanding Natural Features and Outstanding Natural Landscapes and their attributes are recognised and protected from inappropriate subdivision, use and development</i></p>	<p>A small strip of land located at the site access to Riverview Road is located within the Outstanding Natural Landscape Overlay for the Waikato River. The proposed activity (in particular the fill areas and proposed internal roads) are not within this overlay. Overall, landscape effects are not more than minor (as concluded in section 8.4 of this report) and access to/views of the Waikato River are not compromised. The proposal is consistent with these objective NFL-O1 and policies NFL-P1 and NFL-P2.</p> <p>In relation to NFL-P3, on the basis of submission, it is not clear whether the relationship of tangata whenua with the Waikato River can be provided for via the imposition of conditions such as a Maatauranga Maaori Environmental Monitoring Plan condition.</p>
<p>Policies</p>	
<p><i>NFL-P1 Recognising values and qualities.</i> (1) <i>Recognise and protect the attributes of outstanding natural features and outstanding natural landscapes as set out in SCHED5 – Outstanding natural features and landscapes.</i></p>	
<p><i>NFL-P2 Protection from inappropriate subdivision, use and development.</i> <i>Avoid the adverse effects of extractive industries and earthworks on the attributes of Outstanding Natural Features and Outstanding Natural Landscapes.</i></p>	
<p><i>NFL-P3 The relationships of Maaori with natural resources and land.</i> (1) <i>Provide for the consideration of cultural and spiritual relationships of Maaori with Outstanding Natural Features and Outstanding Natural Landscapes as part of subdivision, use and development.</i></p>	

9.5.7 Ecosystems and Indigenous Biodiversity

Objectives	Comments
<p><i>ECO-O1 Significant Natural Areas.</i> <i>Indigenous biodiversity in Significant Natural Areas is protected or enhanced</i></p>	<p>The subject site includes areas identified as SNA but the Fill Areas and associated infrastructure are not within the SNA. The only works within a SNA are minor earthworks within the compensation area. These earthworks are associated with the proposed offset works. On this basis, the</p>
<p><i>ECO-O2 Biodiversity and ecosystems.</i> <i>Indigenous biodiversity and the life-supporting capacity of indigenous ecosystems are maintained or enhanced.</i></p>	

Policies	
<p><i>ECO-P2 Management hierarchy</i></p> <p>(1) <i>Recognise and protect the values of indigenous biodiversity within Significant Natural Areas by:</i></p> <p>(a) <i>Avoiding adverse effects of vegetation clearance and the disturbance of habitats in the first instance as far as practicable;</i></p> <p>(b) <i>Remediating and/or mitigating any effects that cannot be avoided; then</i></p> <p>(c) <i>After remediation or mitigation has been undertaken, offset any more than minor residual adverse effects in accordance with Policy ECO-P3.</i></p> <p>(d) <i>If offsetting of any significant residual adverse effects in accordance with Policy ECO-P3 is not feasible then environmental compensation may be considered.</i></p>	<p>proposal is consistent with ECO-01, ECO-P2, ECO-P6 and ECO-P8.</p> <p>The effects on indigenous biodiversity and ecosystems outside of SNA areas, particularly to indigenous vegetation and habitats of indigenous fauna is considered in detail in section 8.7 above. Of concern is the conclusion that the loss of indigenous vegetation and habitat within (non NESFW) wetlands is not adequately offset as per the current compensation plan. However, (on the basis of the expert input) opportunities exist to provide additional compensation, which can be achieved through conditions along with Bat Management and Lizard Management Plans. The long-term functioning of the compensation areas can be ensured via a condition providing legal protection. As per the possible conditions, there is potential to provide opportunities for the exercise of kaitiakitanga, On this basis, the proposal is not considered to be contrary to objectives ECO-02, ECO-P9 and ECO-P10.</p>
<p><i>ECO-P6 Managing Significant Natural Areas.</i></p> <p>(1) <i>Manage Significant Natural Areas in a way that protects long-term ecological functioning and indigenous biodiversity, through such means as:</i></p> <p>(a) <i>Permanently excluding stock through voluntary covenants;</i></p> <p>(b) <i>Undertaking plant and animal pest control;</i></p> <p>(c) <i>Retaining and enhancing indigenous vegetation cover;</i></p> <p>(d) <i>Maintaining and restoring natural wetland hydrology;</i></p> <p>(e) <i>Avoiding physical and legal fragmentation;</i></p> <p>(f) <i>Legal protection of Significant Natural Areas through conservation covenants or similar mechanisms; and</i></p> <p>(g) <i>Providing for the role of Mana Whenua as kaitiaki and for the practical exercise of kaitiakitanga in restoring, protecting and enhancing areas</i></p>	
<p><i>ECO-P8 Maintaining and enhancing biodiversity.</i></p> <p>(1) <i>Identify and protect indigenous vegetation and fauna in Significant Natural Areas as the principle means of achieving Objective ECO-02.</i></p>	

<p>(2) Enable activities that maintain or enhance indigenous biodiversity including:</p> <ul style="list-style-type: none"> (a) Planting using indigenous species suitable to the habitat and eco-sourcing these where practical; (b) The removal or management of pest plant and animal species; and (c) Biosecurity works. <p>(3) Avoid, remedying or mitigate adverse effects on indigenous biodiversity, including by considering:</p> <ul style="list-style-type: none"> (a) The range of natural food sources required to sustain indigenous fauna; (b) Habitats of threatened and at risk species; (c) Ecological sequences; (d) Migratory pathways; (e) Pest plants and pest animals; (f) Natural waterway habitats and hydrology; (g) Ecological corridors, natural processes and buffer areas; (h) Legal and physical protection of existing habitat; and (i) The risk of earthworks exacerbating Kauri dieback disease. (j) Provide for the removal of manuka or kanuka on a sustainable basis. 	
<p><i>ECO-P9 Management hierarchy.</i></p> <p>(1) Recognise and protect indigenous biodiversity outside Significant Natural Areas using the following hierarchy by:</p> <ul style="list-style-type: none"> (a) Avoiding the significant adverse effects of vegetation clearance and the disturbance of habitats in the first instance; (b) Remedying any effects that cannot be avoided; then (c) Mitigating any effects that cannot be remedied; and (d) After remediation or mitigation has been undertaken, offset any significant residual adverse effects in accordance with Policy ECO-P10 	
<p><i>ECO-P10 Biodiversity offsetting.</i></p> <p>(1) Allow for a biodiversity offset to be offered by a resource consent applicant where:</p>	

<p>(a) An activity will result in significant residual adverse effects to indigenous vegetation or habitat outside a Significant Natural Area; and</p> <p>(b) The biodiversity offset is consistent with the framework detailed in APP3 – Biodiversity offsetting</p>	
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9.5.8 Earthworks

Objectives	Comments
<p>EW-O1 Earthworks in all zones except the MRZ – Medium density residential zone. Earthworks facilitate subdivision, use and development</p>	<p>Earthworks are an integral part of the proposed activity and range of conditions are recommended in the assessment in section 8.0 of this report to control the potential effects. This includes implementation of erosion and sediment controls, certification of geotechnical design, accidental discovery protocol and dust management. On this basis, the proposal is consistent with these objectives and policies.</p>
<p>Policies</p> <p>EW-P2 Earthworks in the GRUZ – General rural zone, FUZ – Future urban zone, CORZ – Corrections zone or TTZ – TaTa Valley zone.</p> <p>(1) Enable earthworks associated with rural or conservation activities including:</p> <ul style="list-style-type: none"> (a) Ancillary rural earthworks; (b) Farm quarries; (c) The importation of controlled cleanfill material to a site; and (d) Indigenous biodiversity restoration. <p>(2) Manage earthworks to ensure that:</p> <ul style="list-style-type: none"> (a) Erosion and sediment loss is avoided or mitigated; (b) The ground is geotechnically sound and remains safe and stable for the duration of the intended land use; (c) Changes to natural water flows and established drainage paths are avoided or mitigated; (d) Adjoining properties and infrastructure are protected; (e) Historic heritage and cultural values are recognised and protected; and (f) Ecosystem protection, restoration, rehabilitation or enhancement works are encouraged. 	

9.5.9 Noise

Policies	Comments
<p>NOISE-P3 Noise and vibration in the GRUZ – General rural zone.</p>	<p>Subject to the assessment and recommendations outlined in 8.3 (informed</p>

<p>(l) <i>Manage the adverse effects of noise and vibration by:</i></p> <p>(a) <i>Ensuring that noise and vibration levels do not compromise rural amenity;</i></p> <p>(b) <i>Limiting the timing and duration of noise-generating activities to the extent practicable and appropriate;</i></p> <p>(c) <i>Maintaining appropriate separation between high noise environments and noise sensitive activities;</i></p> <p>(g) <i>Managing the adverse effects of vibration from quarrying activities by limiting the timing and duration of blasting activities and maintaining sufficient setback distances from residential units or identified building platforms on another site; and</i></p> <p>(f) <i>Managing noise to minimise as far as practicable effects on existing noise sensitive activities.</i></p>	<p>by the expert reports) the adverse effects of noise and vibration can be managed with adherence to conditions as noted. On this basis, the proposal is consistent with this policy.</p>
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9.5.10 General Rural Zone

Objectives	Comments
<p><i>GRUZ-O1 Purpose of the zone.</i></p> <p>(1) <i>Enable farming activities;</i></p> <p>(2) <i>Protect high class soils for farming activities;</i></p> <p>(3) <i>Provide for rural industry, infrastructure, rural commercial, conservation activities, community facilities, and extractive activities;</i></p> <p>(4) <i>Maintain rural character and amenity;</i></p> <p>(5) <i>Limit development to activities that have a functional need to locate in the zone.</i></p>	<p>The activity has a functional need to be established in a rural area for two reasons. Firstly the fill activity includes overburden disposal in association with the quarry established on the site. Secondly, the space required to facilitate a fill disposal site is such that the rural zone is the appropriate area to accommodate this activity. The site does not contain high quality soils with the fill areas containing soil identified as have a LUC of 6. Given the presence of the established quarry and topographical constraints, the site is not suited to typical farming activities.</p>
<p><i>GRUZ-O3 Rural character and amenity.</i></p> <p>(1) <i>Maintain rural character and amenity.</i></p> <p>(2) <i>The attributes of areas and features valued for their contribution to landscape values and visual amenity are maintained or enhanced.</i></p>	<p>Section 8 of this report concludes that rural character, amenity and landscape values can be maintained provided the recommended conditions are complied with. The fill areas (being a waste disposal activity as well as overburden disposal area associated with the quarry) are located outside of Outstanding Natural Landscape, Feature and Character Areas. The activity supports development within the District in that the</p>
<p><i>GRUZ-O3 Extractive activities</i></p> <p><i>Recognise the contribution of extractive industries to the economic and social wellbeing of the district.</i></p>	
<p>Policies</p>	
<p><i>GRUZ-P3 Contributing elements to rural character and amenity values.</i></p>	

<p><i>Recognise that rural character and amenity values vary across the zone as a result of the natural and physical resources present and the scale and extent of land use activities.</i></p>	<p>disposal of waste products to approved facilities is a necessary service. Compensation of the loss of indigenous vegetation and habitat can be provided for via conditions of consent. On this basis, the proposal is largely consistent with these objectives and policies, though I note that information to confirm the adequacy of stormwater infrastructure has not been provided. Therefore the proposal is not wholly consistent with GRUZ-PI7.</p>
<p><i>GRUZ-P5 Other anticipated activities in rural areas</i> <i>Enable activities that provide for the rural community's social, cultural, and recreational needs, subject to such activities being of a scale, intensity, and location that are in keeping with rural character and amenity values.</i></p>	
<p><i>GRUZ-PI0 Waste management activities.</i></p> <p>(2) <i>Ensure waste management facilities are located and operated so that rural amenity and character are maintained and conflict with rural activities are minimised.</i></p> <p>(3) <i>Avoid waste management facilities located within:</i></p> <p>(a) <i>An Outstanding Natural Landscape;</i> (b) <i>An Outstanding Natural Feature;</i> (c) <i>An Outstanding Natural Character Area</i></p>	
<p><i>GRUZ-PI7 Management of extractive activities.</i></p> <p>(1) <i>Provide for extractive activities provided that adverse effects are appropriately avoided, remedied or mitigated; and, where this is not possible, off-set or compensated.</i></p>	

9.5.11 Proposed District Plan Objectives and Polices Conclusion

On the basis of the above assessments in sections 9.5.1 to 9.5.10, it is my conclusion that while the proposal is consistent with most of the relevant objectives and policies of the PDP, there aspects of the proposal of concern. In particular, a submission from Te Kauri Marae notes the Waikato River is a taonga and that the proposal will not enhance the mana and mauri o te wai. On this basis, I find that the proposal is not consistent with objectives SD-02, TEWT-O1 and policies TEWT-P1 and NFL-P3. I note that objective TEWT-O1 and policy TEWT-P1 are of particular importance to achieving Te Ture Whaimana.

Furthermore the proposal is not consistent with objective AINF-O1 and policies AINF-P25, AINF-P26 and AINF-P28 as there is not adequate information to confirm that appropriate stormwater infrastructure is provided. For this same reason the proposal is not wholly consistent with GRUZ-PI7.

10.0 SECTION 104(1)(C) – OTHER MATTERS

When considering an application for a resource consent and any submissions received, the consent authority must, subject to Part 2, have regard to any other matter the consent authority considers relevant and reasonably necessary to determine the application. These matters are discussed below.

10.1 Waikato Tainui Environmental Plan

The Waikato-Tainui Environmental Plan (WTEP) was published in August 2013. WTEP is the Waikato-Tainui environmental planning document which has been recognised by the Iwi Authority Waikato-Tainui Te Kauhanganui Incorporated (WTTKI) who are the Iwi Authority for Waikato-Tainui.

Of particular relevance to this proposal within the context of the WDC consents are the following chapters:

- Chapter 6 – Consultation and Engagement Process
- Chapter 11 – The Vision and Strategy for the Waikato River - Te Ture Whaimana o te Awa o Waikato
- Chapter 21 – Land
- Chapter 23 – Air
- Chapter 28 – Mining and Quarrying Oil, Gas, Minerals

I have not provided a detailed policy analysis noting that the matters with the chapters noted, seek similar outcomes to the objectives and policies of the policy documents considered elsewhere in this report. Instead, I note the following points:

- The applicant has documented the consultation undertaken to date which has not resulted in any agreements being reached
- As per the assessments above, in my view that the proposal is not consistent with Te Ture Whaimana
- As per the assessments above, and subject to conditions the proposal is generally consistent with chapters 21, 23 and 28.

On the basis of the above, the proposal is not consistent with WTEP.

10.2 Future Proof Strategy

The Future Proof Strategy is a 30 year growth management and implementation plan specific to the Hamilton, Waipā and Waikato sub-region within the context of the broader Hamilton-Auckland Corridor and Hamilton-Waikato Metropolitan areas. The strategy provides a framework to manage growth in a collaborative way for the benefit of the Future Proof sub-region both from a community and a physical perspective. The strategy is supported by guiding principles which are to be used in assessing and measuring proposals against the strategy. The following are considered to be relevant to this proposal:

- *Protection of the natural environment*
- *Affordable and sustainable resource use*
- *Productive partnerships with taangata whenua/ mana whenua*
- *Sustainable resource use and climate resilience*

These matters have been considered in the assessments undertaken above. The proposal can be undertaken in a manner that is consistent with Future Proof on the basis of the conditions that are recommended.

11.0 ASSESSMENT OF PART 2 MATTERS

This part of the report examines the purpose and principles of Part 2 the Act as set out in sections 5, 6, 7 and 8 within the context of the consents required under the PDP. All of the section 104 analysis conducted in the previous parts of this report (sections 8 to 10) is subject to the relevant matters in these sections (i.e. the purpose and principles of the Act hold a pre-eminent position).

11.1 Section 8 – Treaty of Waitangi

Section 8 requires the Council to take into account principles of the Treaty of Waitangi. The Act does not go so far as to define the principles of the Treaty that should be taken into account, but the Court of Appeal, the Waitangi Tribunal, and statements by Government, indicate that the following are appropriate principles:

- early consultation and acting in good faith;
- the principle of partnership; and,
- the need for active protection.

The applicant has undertaken consultation with Waikato Tainui and Waahi Whaanui Trust. However, this has not resulted in an agreement being reached. The submissions received by WDC indicate that concerns with regard to the impact on cultural values exist. This includes effects to the Waikato River and the mana and mauri o te wai, the whenua, flora, fauna and people. As appropriate for the consideration of the District Council consents, the physical effects on these elements have been assessed and a series of recommended conditions are proposed. I note that physical effects to the Waikato River and water in general is a matter which is more appropriately considered in relation to the WRC consents.

Despite that and on the basis of submission, there is a potential for the proposal as a whole to adversely affect the values that tangata whenua.

To provide for ongoing partnership and protection, a condition is suggested within the assessment in section 8.11 which would provide opportunities for iwi/hapu input including:

- Cultural monitoring during topsoil removal;
- Iwi/hapu input into the Closure and Rehabilitation plan;
- Involvement of the iwi/hapu in water quality monitoring;
- Iwi/hapu input into the Dust Management Plan and air discharge monitoring;
- Iwi/hapu input into the Bat Management Plan and Ecological Management Plan.

The above condition may provide for the principle of partnership and active protection by tangata whenua only on the basis that they are satisfied that this is adequate to address their concerns in terms of the potential cultural effects of the activity. Unless information presented at the hearing by submitters (in particular Te Kauri Marae Trust) confirms that this is satisfactory, I do not consider that the proposal is consistent with section 8 of the Act.

11.2 Section 7 – Other Matters

Section 7 requires that Council shall have particular regard to:

- (a) *Kaitiakitanga*

- (aa) *The ethic of stewardship*
- (b) *The efficient use and development of natural and physical resources*
- (ba) *The efficiency of the end use of energy*
- (c) *The maintenance and enhancement of amenity values*
- (d) *Intrinsic values of ecosystems*
- (e) *repealed*
- (f) *Maintenance and enhancement of the quality of the environment*
- (g) *Any finite characteristics of natural and physical resources*
- (h) *The protection of the habitat of trout and salmon*
- (i) *The effects of climate change*
- (j) *The benefits to be derived from the use and development of renewable energy*

In this case, sections (a), (b), (c), (d), (f) and (g) are relevant to consideration of the proposal.

In terms of kaitiakitanga (7(a)) there is potential that this can be recognised through the imposition of a condition which provides opportunities for iwi/hapu input into the operation and monitoring of the activity. Unless information presented at the hearing by submitters confirms that this is satisfactory, there is potential that the proposal does not provide adequately for kaitiakitanga to be exercised.

In terms of the efficient use and development of natural and physical resources (7(b)) and the finite characteristics of natural and physical resources (7(g)), the resource relevant to this proposal is the wider quarry site and its potential to take managed fill. In my opinion, the proposal represents an efficient use of the land given that a compatible and complementary activity is already being undertaken on the site. The new disposal areas will mean that trucks that would have entered empty now have the potential to enter and leave full.

In terms of the maintenance and enhancement of amenity values and environmental quality (7(c)) a (7(f)), it is concluded in the assessment in section 8 above that this can be achieved with controls such as dust management. The intrinsic values of ecosystems (7(d)) are recognised in that ecological compensation is proposed.

Taking the above into consideration, it is my opinion that the proposal meets the relevant principles of Section 7 except that additional information is necessary in relation to whether the proposal enables tangata whenua to exercise kaitiakitanga.

11.3 Section 6 – Matters of National Importance

In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall recognise and provide for the following matters of national importance:

- (a) *The preservation of the natural character of the coastal environment (including the coastal marine area), wetlands, and lakes and rivers and their margins, and the protection of them from inappropriate subdivision, use, and development:*
- (b) *The protection of outstanding natural features and landscapes from inappropriate subdivision, use, and development:*
- (c) *The protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna:*

- (d) *The maintenance and enhancement of public access to and along the coastal marine area, lakes, and rivers:*
- (e) *The relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga.*
- (f) *The protection of historic heritage from inappropriate subdivision, use and development.*
- (g) *The protection of recognised customary activities.*

In this case, sections (a), (c) and (e) are potentially relevant to consideration of the proposal.

With regard to clause (a), the proposed activity will have limited impact on natural character noting that the site is highly modified due to the presence of the existing quarry.

With regard to clause (c), I note that the indigenous vegetation (which provides habitat to indigenous fauna) to be removed is not identified as significant, by virtue of not being within a mapped SNA within the PDP.

With regard to clause (e), the site is not known to contain waahi tapu sites. However, the works have the potential to impact upon the Waikato River and identified taonga. The physical effects to the river in terms of water quality are considered within the WRC officers report. As discussed, a Maatauranga Maaori Environmental Monitoring Plan condition which provides opportunities for iwi/hapu input into the operation and monitoring of the activity may be suitable to ensure that this relationship is recognised and provided for. Further information presented by tangata whenua is necessary to determine whether such a Monitoring Plan condition is acceptable to ensure that their relationship with taonga is recognised. Based on the information available at present, and noting that comments within submissions, it is concluded that the proposal is contrary to clause (e).

Accordingly, I find the proposal to be consistent with the relevant matters in Section 6 with the exception of clause (e).

11.4 Section 5 – Purpose

As stated above, sections 6, 7 and 8 all serve to inform the analysis and consideration of whether the purpose of the Act under section 5 will be achieved by the proposal. Section 5 is set out as follows and the matters within it are considered below:

- (1) *The purpose of this Act is to promote the sustainable management of natural and physical resources.*
- (2) *In this Act, sustainable management means managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural well-being and for their health and safety while -*
 - (a) *Sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and*
 - (b) *Safeguarding the life-supporting capacity of air, water, soil, and ecosystems; and*
 - (c) *Avoiding, remedying, or mitigating any adverse effects of activities on the environment.*

The proposal will enable social and economic well-being by providing a necessary service (waste disposal) which supports development including infrastructure (road, rail) and general

construction. The proposal will not impact upon the ability of resources to meet the needs of future generations. The life-supporting capacity of air, water, soil and ecosystems can be maintained, and potential adverse effects can be mitigated, subject to the imposition of conditions of consent on both WDC and WRC consents.

However, noting the comments made throughout this report, and in particular those in relation to sections 6, 7 and 8, the application does not demonstrate that it enables the cultural well-being of tangata whenua.

On this basis, it is my opinion that the proposal is not consistent with the purpose of the Act.

12.0 OVERALL ASSESSMENT UNDER PROPOSED DISTRICT PLAN – APPEALS VERSION

After having considered the application in accordance with those matters required by section 104, I find that in terms of s104(1)(a), there is potential for adverse effects to arise in relation to cultural values. These effects warrant further consideration at the hearing (including information presented by submitters) but on the basis of the information available and informed by submissions, I conclude that unacceptable cultural effects will arise from this activity. Further, the lack of a site wide stormwater management plan has been identified as a gap within the information and therefore there is potential for unacceptable stormwater effects to occur.

On the basis of the expert advice, I am satisfied that the remaining actual and potential adverse effects of the proposal will be acceptable subject to compliance with suggested conditions of consent. This conclusion is reliant on the Applicant providing additional information on the directional split of trucks to and from the site, the extent of the pine and eucalyptus plantations necessary to screen the fill sites, compensation for loss of wetland vegetation, clarification on any need for additional (retrospective) consents for vegetation removal and staging in relation to on-site disposal of contaminated material from Fill Area 3.

In terms of section 104(1)(b), I have established that the activity is not consistent with all of the relevant objectives and policies of the PDP and the RPS. In particular the proposal is not consistent with Te Ture Whaimana, which is a part of the RPS as well as the objectives and policies of the PDP which seek to effect to Te Ture Whaimana. Furthermore, there are a number of other objectives and policies within the PDP which recognise and provide for tangata whenua's relationship with their taonga with which the proposal is not consistent with. I also note that the proposal is not consistent with objective AINF-O1 and policies AINF-P25, AINF-P26 and AINF-P28 as there is not adequate information to confirm that appropriate stormwater infrastructure is provided.

As per section 104(1)(c) I note that the application is not consistent with the WTEP in relation to Te Ture Whaimana.

The proposal has the potential to be contrary to Part 2 of the Act. With regard to sections 6 – 8 of the Act and on the basis of submissions, the application does not recognise and provide for the relationship of Maaori with their other taonga, provide for kaitiakitanga or the active protection in a manner consistent with the principles of the Treaty of Waitangi. Therefore, the proposal is not promote sustainable management specifically in providing for the the cultural well-being of tangata whenua.

In conclusion, my recommendation is that the application be refused.

OPERATIVE WAIKATO DISTRICT PLAN ASSESSMENT

13.0 ASSESSMENT OF EFFECTS ON THE ENVIRONMENT UNDER OPERATIVE DISTRICT PLAN

This section of the report considers the actual and potential effects on the environment of allowing the activity in relation to the consenting matters under the ODP (outlined in section 3.1). I consider that the actual and potential adverse effects on the environment resulting from the proposal as per the required ODP consents are in general, adequately considered in section 8 of this report and shall not be repeated here. In particular this is because the overall activity status of the proposal under both the ODP and PDP is Discretionary. The following additional matters are considered:

13.1 Extent of the Aggregate Extraction Policy Area

Within the ODP, the Aggregate Extraction Policy Area is smaller than the corresponding Aggregate Extraction Area identified in the PDP. As a result of this, Fill Area 2 is wholly contained within the Aggregate Extraction Area identified in the PDP but is only partially within the Aggregate Extraction Policy Area in the ODP. There are no appeals in relation to the extent of the Aggregate Extraction Area of the General Rural Zone.

With regard to Fill Area 2, a Restricted Discretionary Activity consent is required under the PDP, whereas this triggers the need for a Discretionary Activity consent under the ODP. Despite this, the full range of potential effects for the activity within Fill Area 2 has in my opinion been considered in section 8.

13.2 Ecology Effects

A Restricted Discretionary consent is required under both the ODP and PDP for the indigenous vegetation clearance activities proposed within the Fill Areas. As outlined in section 8.7, the PGC peer review suggest that works have been undertaken without resource consents first being obtained. These are:

- Clearance of indigenous vegetation as a result of draining of a wetland within Fill Area 3 (in June 2020) triggering the need for a consent as per rule 25.43A of the ODP.
- Indigenous vegetation (swamp millet) located within the proposed compensation area was sprayed in 2022. This would require consent under rule 25.43A of the ODP.

As per section 8.7, it is my expectation that the applicant will address this point further in their evidence.

Furthermore, within section 8.7.2 an assessment against the matters of discretion is provided for the PDP despite this not being a specific requirement as the overall activity status of this proposal is Discretionary. Therefore, for completeness, an assessment against the Restricted Discretionary assessment matters for the indigenous vegetation clearance under rule 25.43A of the ODP is provided in the following table:

Table 12: Assessment Against Restricted Discretionary Matters of Discretion – Rule 25.43A

ODP Rule 25.43A: Matters of Discretion	Comments
<i>Effects on landscape values</i>	Discussed in sections 8.4
<i>Effects on ecological values</i>	The implementation of the proposed compensation works (including fencing, pest and weed management and planting) along with Bat Management and Lizard Management Plans will go some way towards mitigating the loss of ecological values. Additional compensation works are recommended to be included within compensation plan.
<i>Effects on significant indigenous vegetation and habitat</i>	The vegetation to be removed is not identified as “significant” by either the ODP or PDP. While habitat will be lost, PGC peer review notes that adequate compensation for bat, avian and lizard habitat is provided.
<i>Effects on amenity values</i>	Discussed in sections 8.6
<i>Effects on natural character of water bodies and the coastal environment</i>	The fill areas are located within a site which is highly modified due to the presence of the quarry. Therefore, their value in terms of natural character is limited.
<i>Remediation or mitigation measures</i>	As noted above, the mitigation proposed is determined to be satisfactory within the PGC review except in terms of the loss of indigenous vegetation and habitat within (non NESFW) wetlands. The offset proposed is not considered to be adequate and therefore additional compensation is recommended.
<i>Effects on social, cultural and economic wellbeing</i>	Cultural effects are discussed in sections 8.11 above. As Fill Areas 2, 3 and 4 are located on private land with an operational quarry, there is limited ability for iwi/hapu to access the site. No adverse social or economic effects are anticipated to result from the vegetation loss.
<i>Relocation of species</i>	Can be managed as per the Bat Management and Lizard Management Plans

The assessment against these matters does not alter my conclusion on ecological effects as outlined in section 8.7.

13.3 Summary of Effects – Operative District Plan

Taking into account the assessment provided in section 8 as well as the points in this section, I am satisfied that the actual and potential adverse effects of the proposal will be acceptable subject to compliance with suggested conditions of consent.

This is with the exception there is potential for adverse effects to arise in relation to stormwater runoff and cultural values. In terms of stormwater, as per the Beca peer review, the lack of a site wide stormwater management plan has been identified as a gap within the information and therefore there is potential for unacceptable stormwater effects to occur.

In terms of cultural effects, information presented by submitters is necessary to determine whether the effects to cultural values can be addressed via a condition such as Maatauranga Maaori Environmental Monitoring Plan. On the basis of the information provided to date, I consider that unacceptable cultural effects will arise from this activity.

14.0 RELEVANT PLAN PROVISIONS – S104(1)(B)

The assessments under section 9.1 to 9.4 above are relevant to the assessment under the proposed plan and will not be repeated here.

14.1 Operative Waikato District Plan (Waikato Section) 2013

Assessments of this proposal against the relevant Operative Waikato District Plan - Waikato Section objectives and policies are provided below.

14.1.1 Waikato District Growth Strategy

Objective	Policy
<p><i>1A.6.1</i> The capacity of rural areas to support productive rural activities and lawfully established rural-based activities is maintained.</p>	<p><i>1A.6.3</i> Activities that are not related to productive rural activities should not locate in rural areas unless there is a demonstrable functional need and they will not constrain existing lawfully established productive rural activities, lawfully established rural-based activities or compromise access to and the extraction of mineral resources from Coal Mining Policy Areas.</p> <p><i>1A.6.4</i> Productive rural activities, and appropriate rural-based activities directly associated with rural production, should be able to establish and operate efficiently in rural areas, subject to avoiding, remedying or mitigating their adverse effects on the environment.</p> <p><i>1A.6.7</i> Mineral extraction activities are of a different scale and intensity, and where appropriate should be accommodated.</p>
Comment	
<p>The subject site contains the Gleeson quarry which is a lawfully established activity located in the rural zone. There is a functional need for this activity to be located here given that this is the location of a mineral resource. The proposal will allow the continued operation of the quarry by providing for overburden disposal alongside the proposed managed fill activity. The proposal will not constrain productive rural activities occurring on surround sites. On this basis, the proposal is consistent with these objectives and policies. This is with exception the policy 1A.6.4 as information to confirm the adequacy of stormwater infrastructure has not been provided. Therefore the proposal is not wholly consistent with policy 1A.6.4</p>	
Objective	Policy
<p><i>1A.8.1</i> Landscape, character and amenity values of rural areas are maintained.</p>	<p><i>1A.8.2</i> Activities that do not have a functional need to establish in rural areas should be accommodated in towns, villages and defined growth areas.</p>

	<p><i>1A.8.5 Subdivision, use and development in rural areas should be managed so that a range of lifestyle choices is available while ensuring that rural landscapes and rural character are retained.</i></p> <p><i>1A.8.6 Subdivision, use and development in rural areas that have been modified through development should be managed to ensure that cumulative adverse effects do not compromise rural landscapes and rural character.</i></p>
Comment	
<p>The effect to landscape, character and amenity values, including the potential cumulative effects are examined in section 8 of this report and it is concluded that these can be maintained on the basis of the recommended conditions being met. The activity has a functional need to be established in a rural area for two reasons, firstly the fill activity will include overburden disposal in association with the quarry established on the site. Secondly, the space required to facilitate the activity is such that the rural zone is the appropriate area to accommodate this activity. The activity does not compromise the availability of a range of lifestyle choices within the rural environment. The proposal is consistent with these objectives and policies.</p>	

14.1.2 Indigenous vegetation and habitat

Objective	Policy
<p><i>2.2.1 Indigenous biodiversity and the life-supporting capacity of indigenous ecosystems are maintained or enhanced.</i></p>	<p><i>2.2.2 Areas of indigenous vegetation and habitats of indigenous fauna, and the life supporting capacity of indigenous ecosystems should be maintained or enhanced through on-site works, and the creation of ecological buffers and linkages using eco-sourced plants</i></p> <p><i>2.2.3 Priority should be given to protecting and restoring threatened habitats and habitats of threatened species such as coastal and lowland forest, riparian areas, wetlands, dunes and peatlands.</i></p> <p><i>2.2.5 Areas of significant indigenous vegetation and significant habitats of indigenous fauna should be managed in a way that protects their long-term ecological functioning and biodiversity through such means as:</i></p> <ul style="list-style-type: none"> <i>(a) excluding stock</i> <i>(b) undertaking plant and animal pest control</i> <i>(c) retaining and enhancing vegetation cover</i> <i>(d) maintaining wetland hydrology</i> <i>(e) avoiding physical and legal fragmentation</i> <i>(ea) avoiding housing development close to such areas.</i>
Comment	
<p>The effects on indigenous biodiversity and ecosystems, particularly to indigenous vegetation and habitats of indigenous fauna is considered in detail in section 8.7 above. Of concern is</p>	

the conclusion that the loss of indigenous vegetation and habitat within (non NESFW) wetland is not adequately offset by the compensation works proposed. However, opportunities exist for additional works to be undertaken and such can be required via consent conditions. It is expected that the applicant will address this in their evidence and at the hearing. Compensation works (including fencing, pest and weed management and planting) along with Bat Management and Lizard Management Plans also mitigate the loss of ecological values.

At an ecosystem level, on the basis that additional adequate compensation is provided, the life supporting capacity of indigenous vegetation and habitats within the area can be maintained in a manner generally consistent with objective 2.2.1 and policy 2.2.2 despite individual areas of indigenous vegetation are to be removed. Policy 2.2.3 can be achieved in the implementation of the recommended Bat Management and Lizard Management Plan noting that these are threatened species. The long term functioning of the compensation areas can be ensured via a condition providing legal protection, consistent with policy 2.2.5.

14.1.3 Natural Features and Landscapes

Objective	Policy
<p>3.2.1 <i>Outstanding natural features and landscapes are recognised and protected</i></p>	<p>3.2.2 <i>Outstanding natural features and landscapes, identified in Schedule 3A and on the planning maps as Landscape Policy Areas, should be recognised and protected from the adverse effects of inappropriate subdivision, use and development.</i></p> <p>3.2.3 <i>Cultural and spiritual relationships of Maaori with outstanding natural features and landscapes should be recognised and provided for in the course of subdivision, use and development.</i></p> <p>3.2.4 <i>Subdivision, use, and development (including roads and tracks) should avoid adverse effects on outstanding natural features and landscapes (including ridgelines within those landscapes).</i></p> <p>3.2.6 <i>Views of outstanding natural features and landscapes from public places should be protected from the adverse effects of inappropriate subdivision, use and development.</i></p>
Comment	
<p>A strip of land along the site frontage is identified in the ODP as being within the Landscape Policy Area, being the Waikato River and adjacent land. The proposed activity (in particular the fill areas and proposed internal roads) is not within this Landscape Policy Area and access to/views of the Waikato River are not compromised. The proposal is consistent with objective 3.2.1 and policies 3.2.2, 3.2.4 and 3.2.6.</p> <p>In relation to policy 3.2.3, information provided by submitters indicates that the relationship of Maaori with the Waikato River as a taonga is not adequately recognised and provided for. There is potential that the imposition of conditions such as a Maatauranga Maaori Environmental Monitoring Plan condition, but this can only be determined by iwi/hapu.</p>	

Objective	
<p>3.3A.1</p> <p>(a) the restoration and protection of the health and wellbeing of the Waikato River;</p> <p>(b) the restoration and protection of the relationships of Waikato-Tainui with the Waikato River, including their economic, social, cultural, and spiritual relationships;</p> <p>(c) the restoration and protection of the relationships of Waikato River iwi according to their tikanga and kawa with the Waikato River, including their economic, social, cultural, and spiritual relationships;</p> <p>(d) the restoration and protection of the relationships of the Waikato Region's communities with the Waikato River, including their economic, social, cultural, and spiritual relationships;</p> <p>(e) the integrated, holistic, and co-ordinated approach to management of the natural, physical, cultural, and historic resources of the Waikato River;</p> <p>(f) the adoption of a precautionary approach towards decisions that may result in significant adverse effects on the Waikato River and, in particular, those effects that threaten serious or irreversible damage to the Waikato River;</p> <p>(g) the recognition and avoidance of adverse cumulative effects, and potential cumulative effects, of activities undertaken both on the Waikato River and within the catchment on the health and wellbeing of the Waikato River;</p> <p>(h) the recognition that the Waikato River is degraded and should not be required to absorb further degradation as a result of human activities;</p> <p>(i) the protection and enhancement of significant sites, fisheries, flora, and fauna;</p> <p>(j) the recognition that the strategic importance of the Waikato River to New Zealand's social, cultural, environmental, and economic wellbeing requires the restoration and protection of the health and wellbeing of the Waikato River;</p> <p>(k) the restoration of water quality within the Waikato River so that it is safe for people to swim in and take food from over its entire length;</p> <p>(l) the promotion of improved access to the Waikato River to better enable sporting, recreational, and cultural opportunities;</p> <p>(m) the application to the above of both maatauranga Maaori and the latest available scientific methods</p>	
Comment	
<p>The ODP states that the above objectives are informed by the Vision for the Waikato River which is contained within Schedule 2 of the Settlement Act. An assessment against these same objectives is provided in section 9.3 above as Te Ture Whaimana it is part of the RPS. Within that assessment it is concluded that the proposal is not consistent with Te Ture Whaimana.</p>	
Objective	Policy
<p>3.4.1</p> <p><i>Landscapes and visual amenity values, as viewed from public places, are retained and enhanced.</i></p>	<p>3.4.2</p> <p><i>Natural features and landscapes, including locally distinctive landforms and prominent ridgelines, and general visual amenity values should be protected from inappropriate subdivision, use and development, in particular by:</i></p> <p>(a) <i>avoiding or mitigating adverse effects on natural features such as indigenous vegetation, lakes, rivers and mountains</i></p> <p>(e) <i>avoiding or mitigating the adverse effects on visual amenity from noxious, dangerous, offensive or objectionable materials.</i></p> <p>(fa) <i>considering the effects of activities on the relationship of Maaori with their ancestral lands and waahi tapu.</i></p>

	<p>(fb) <i>avoiding, remedying or mitigating any adverse effects in accordance with the landscape and visual amenity values of the zone in which the activity is located.</i></p> <p>3.4.3 <i>Rural land uses, including productive rural activities, should predominate in the Rural and Coastal Zones.</i></p> <p>3.4.4 <i>Rural landscapes and amenity values should be maintained by avoiding cumulative adverse effects of subdivision use, and development.</i></p>
Comment	
<p>The effect to landscape and visual amenity values, including the potential cumulative effects are discussed in section 8.4 of this report and it is concluded that these can be maintained on the basis of the recommended conditions being met. From a landscape and visual amenity perspective, the loss of indigenous vegetation within the fill areas will an acceptable effect noting that rehabilitation of the site is proposed. The fill areas do not contain any known waahi tapu. The nature of the site is such that its character is dominated by the existing quarry, with this character being maintained.</p> <p>With regard to policy 3.4.2 (fa), I note that the fill areas do not contain any known waahi tapu. However, the submissions identify that the proposal will have an adverse impact of the relationship that Maori have with the whenua. There is potential that this can be addressed via the imposition of conditions such as a Maatauranga Maori Environmental Monitoring Plan condition.</p> <p>Overall, it is my opinion that the proposal is consistent with these objectives and policies except that additional information is necessary in relation to policy 3.4.2 (fa).</p>	
Objective	Policy
<p>3.6.1 <i>The natural character of the coastal environment, wetlands, and lakes and rivers and their margins is preserved.</i></p>	<p>3.6.2 <i>Subdivision, use and development should be of a density, scale, intensity and location that preserves the natural character of the coastal environment, wetlands, and lakes and rivers and their margins and should retain or enhance the relevant components of that character, including:</i></p> <p>(a) <i>geology, landform, indigenous vegetation and wildlife, and</i></p> <p>(b) <i>natural processes, elements and patterns, and</i></p> <p>(c) <i>intrinsic values of ecosystems, and</i></p> <p>(d) <i>restoration potential, including potential vegetation cover, and</i></p> <p>(e) <i>aesthetic, visual, cultural and heritage values attached to places and features, including the cultural and spiritual relationship of Maori with their ancestral lands, and</i></p> <p>(f) <i>unique or typical characteristics, and</i></p> <p>(g) <i>the scale and context of modifications, including:</i></p> <ul style="list-style-type: none"> • <i>the ratio of open space to areas covered by buildings and other development</i>

	<ul style="list-style-type: none"> • <i>land use</i> • <i>open space areas in pasture, trees, crops or indigenous vegetation</i> • <i>water quality and flows</i> • <i>views of natural features, the coast, indigenous vegetation and water bodies</i>
Comment	
<p>The fill areas are located within a site which is highly modified due to the presence of the quarry. Therefore, their value in terms of natural character is limited. No change is proposed to site as visible from the Waikato River and therefore the existing character is retained particularly in relation to geology, landform, indigenous vegetation along the river margin, restoration potential and aesthetic and visual values. With regard to the retention of wildlife, I note that the Waikato River is a known corridor for bats and accordingly, vegetation removal within the site is to be offset with compliance with a Bat Management Plan. However, information provided within submissions indicated that the proposal will not preserve cultural and spiritual relationship of Maaori associated with the Waikato River. Overall, it is my opinion that the proposal is consistent with these objectives and policies except as noted for 3.6.2(e)</p>	

14.1.4 Natural Resources

Objective	Policy
<p>4.2.1 <i>Physical, chemical and biological properties necessary for maintaining the life supporting capacity and productive use of the soil, especially high quality soil, are retained.</i></p>	<p>4.2.2 <i>The productive potential of soil, especially high quality soil, should not be compromised by activities that do not use or rehabilitate the productive capability of the soil or that adversely affect the physical, chemical and biological properties of the soil.</i></p> <p>4.2.3 <i>Soil, especially high quality soil, should be available in its natural state and original location for future generations.</i></p> <p>4.2.6 <i>The physical, chemical and biological properties of soil should be reinstated at the conclusion of activities that have adversely affected those properties.</i></p>
Comment	
<p>As noted in section 9.2.2 above, the site does not contain high quality soils. Overall, the site is considered to have limited productive potential as the physical constraints (such as the topography) make it impractical for traditional farming activity to occur. Topsoil will be removed and stockpiled for reuse in rehabilitation. The proposal is consistent with these objectives and policies.</p>	
Objective	Policy
<p>4.5.A.1 <i>Minerals are available for extraction</i></p>	<p>4.5.A.2 <i>Nationally and regionally significant mineral resources should be recognized for their actual or potential contribution to social and economic wellbeing.</i></p> <p>4.5.A.3 <i>Access to and extraction of mineral resources from specific areas</i></p>

	<i>identified as Coal Mine Policy Areas and Aggregate Extraction Policy Areas on the planning maps should not be compromised by new use or development in areas on or close to those areas.</i>
Comment	
The proposal supports the continued operation of the existing quarry activity by providing for overburden disposal and therefore is consistent with these objectives and policies.	
Objective	Policy
4.6.1 <i>Coastlines, wetlands, lakes and rivers are protected from the adverse effects of subdivision and land disturbance</i>	4.6.2 <i>Margins of water bodies (including river banks) and the coast, significant indigenous vegetation and habitats, and other sensitive areas should be protected from the adverse effects of soil removal and disturbance, earthworks, vegetation clearance, and disposal of waste to land, or if disturbed, reinstated to an equivalent or better condition than prior to disturbance.</i> 4.6.2A <i>Subdivision and land disturbance along the margins of water bodies and the coast should be managed to avoid, remedy or mitigate adverse effects, including sediment and nutrient runoff and the removal of soil.</i>
Comment	
As relevant to the WDC consenting matters, environmental controls such as dust management and erosion and sediment control measures are proposed and can be controlled via the imposition of conditions. The proposal is consistent with these objectives and policies.	

14.1.5 Land Transport Network

Objective	Policy
8.2.1 <i>An integrated, safe, responsive and sustainable land transport network is maintained, improved and protected.</i>	8.2.2A <i>Subdivision, use and development should not compromise the road function as specified in the road hierarchy.</i> 8.2.2B <i>Subdivision, use and development should be in a location and at a scale that</i> <ul style="list-style-type: none"> <i>(a) is consistent with the existing or planned capacity and design of the roading network, and</i> <i>(aa) is consistent with the intended function of any roads that may be affected by the subdivision, use and development (roading hierarchy), and</i> <i>(b) does not compromise the safety and efficiency of the roading network, and</i> <i>(c) does not compromise the safety and efficiency of the railway network.</i> 8.2.3 <i>The integrated, safe, responsive and sustainable operation of the land transport network should be promoted through:</i> <ul style="list-style-type: none"> <i>(a) carriageway, intersection and site design</i>

	<p>(b) <i>appropriate siting of and access for traffic generating activities</i></p> <p>(c) <i>traffic management, signage, road marking, lighting, and rest areas and parking as appropriate</i></p> <p>(d) <i>provision for pedestrians, cyclists and the disabled, including off road routes and connections including pedestrian malls</i></p> <p>(e) <i>provision of public transport</i></p> <p>(f) <i>provision for network utilities</i></p> <p>(g) <i>appropriate access for existing land uses</i></p> <p>(h) <i>railway crossing design.</i></p> <p>8.2.5 <i>Subdivision, use and development should be located and designed to connect safely to an existing road.</i></p> <p>8.2.5A <i>Land use activities should provide adequate on-site parking.</i></p>
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Comment

Section 8.2 of this report details my assessment of traffic effects (which is informed by expert opinion). On the basis of this assessment and the imposition of recommended conditions of consent, I consider that a safe, responsive, sustainable and integrated transport network can be maintained. In particular, the functionality of the road for all users can be maintained while taking into account the additional movements proposed for this activity.

The scale of the proposal and associated heavy vehicle movements are such that remedial procedures to prevent the tracking of debris onto the road are necessary. Furthermore, a circulation and loading management plan is recommended to ensure safety in the vicinity of the site access.

On this basis the proposal is consistent with these objectives and policies.

14.1.6 Solid Waste

Objective	Policy
<p>10.2.8 <i>Effects of solid waste collection, recycling, recovery, transfer, treatment and disposal operations are minimised.</i></p>	<p>10.2.9 <i>Solid waste collection, recycling, recovery, storage, treatment and disposal activities should be sited, designed and managed to avoid, remedy or mitigate adverse effects on the environment, amenity values and in particular on amenity values, health and safety, high quality soils, landscapes, and ecologically and culturally sensitive areas.</i></p>

Comment

As discussed in section 8, the effects of the waste disposal activity will be acceptable (on the basis that they can be mitigated through the imposition of conditions of consent) except in relation to cultural effects and the stormwater management. Therefore the proposal is not wholly consistent with these objectives and policies.

14.1.7 Amenity Values

Objective	Policy
<p><i>13.2.1</i> Adverse effects of activities on amenity values are contained within the site where they are generated.</p>	<p><i>13.2.2</i> Adverse effects associated with lighting, litter, electromagnetic radiation, vermin, traffic, spray drift, and noise should be contained within the site where they are generated.</p> <p><i>13.2.3</i> Adverse effects associated with offensive or objectionable dust, smoke and odour should be contained within the site where they are generated.</p> <p><i>13.2.4</i> Adverse effects that cannot be contained on the site where they are generated must be remedied or mitigated.</p> <p><i>13.2.5</i> Amenity values, health and safety should be protected from adverse traffic effects including:</p> <ul style="list-style-type: none"> (a) noise, vibration, dust, lighting and glare (b) vehicle emissions (c) accelerated or contaminated stormwater runoff (d) visual effects of parking and loading areas (e) traffic safety and congestion.
<p><i>13.2.6</i> Amenity values of localities are maintained and enhanced.</p>	<p><i>13.2.7</i> Scale, intensity, timing and duration of effects of activities should be managed to be compatible with the amenity and character of the locality.</p> <p><i>13.2.8</i> Activities with similar effects or a similar expectation of amenity should be located together.</p> <p><i>13.2.10</i> Activities with dissimilar effects or a dissimilar expectation of amenity should be separated where possible.</p>
Comment	
<p>My assessment of effects which contribute to amenity values is provided in section 8.0 of this report and it is my conclusion that amenity values can be maintained through the imposition of conditions of consent. In particular these conditions include those related to noise, dust, traffic generation and landscape and visual effects.</p> <p>The existing amenity values of this locality are influenced by the presence of the existing quarry and the effects generated by the fill activity will be compatible. Policy 13.2.8 supports the location of the proposed fill activity on the same site as the quarry in that the activities have a similar expectation of amenity.</p> <p>On this basis the proposal is consistent with these objectives and policies.</p>	
Objective	Policy

<p><i>13.6.1 Rural character is preserved.</i></p>	<p><i>13.6.2 Rural subdivision and development should be of a density, scale, intensity and location to retain or enhance rural character, including:</i></p> <ul style="list-style-type: none"> <i>(aa) a predominance of natural features over built features</i> <i>(a) a very high ratio of open space in relation to areas covered by buildings</i> <i>(b) open space areas in pasture, trees, crops or indigenous vegetation</i> <i>(c) tracts of unmodified natural features, indigenous vegetation, streams, rivers, wetlands and ponds</i> <i>(d) large numbers of farm animals and wildlife</i> <i>(e) noises, smells and sights of farming, horticultural and forestry uses</i> <i>(f) post and wire fences, purpose-built farm buildings, and scattered dwellings</i> <i>(fa) low population density</i> <i>(g) generally narrow carriageways within wide road reserves, often unsealed with open drains, low-speed geometry and low traffic volumes</i> <i>(h) a general absence of urban-scale and urban-type infrastructure such as roads with kerb and channel, footpaths, mown berms, street lights, advertising signs, sealed and demarcated parking areas, decorative fences and gateways</i> <i>(i) a diversity of lot sizes and shapes, related to the character and pattern of the landscape.</i> <p><i>While recognising that mineral extraction activities are of a different scale and intensity, and where appropriate should be accommodated.</i></p>
Comment	
<p>The rural character of the area is maintained by the proposal, noting that the subject site's character is influenced by the existing working quarry located on the site. With the imposition of conditions referred to in the assessment undertaken in section 8 of this report (and including the retention of existing trees and shaping and planting of the landform to integrate with its surrounds), the managed fill activity can be accommodated. The proposal is consistent with these objectives and policies.</p>	

14.1.8 Operative District Plan Objectives and Policies Conclusion

On the basis of the above assessments in sections 14.1.1 to 14.1.7, it is my opinion that while the proposal is consistent with the most of the relevant objectives and policies of the ODP, it is not consistent with objective 3.3A.1 and policies 3.2.3, 3.4.2(fa) and 3.6.2(e). I note that objective 3.3A.1 is of particular importance in that it sets out the objectives Te Ture Whaimana.

Furthermore the proposal is not wholly consistent with objective 10.2.8 and policies 10.2.9 and 1A.6.4 as there is not adequate information to confirm that appropriate stormwater infrastructure is provided.

15.0 SECTION 104(1)(C) – OTHER MATTERS

The assessments under section 10 above are relevant to the assessment under the ODP and will not be repeated here.

16.0 ASSESSMENT OF PART 2 MATTERS

The assessments under section 11 above are relevant to the assessment under the ODP and will not be repeated here.

17.0 OVERALL ASSESSMENT UNDER OPERATIVE DISTRICT PLAN

After having considered the application in accordance with those matters required by section 104, I find that in terms of s104(1)(a), there is potential for adverse effects to arise in relation to cultural values. These effects warrant further consideration at the hearing (including information presented by submitters) but on the basis of the information available and informed by submissions, I conclude that unacceptable cultural effects will arise from this activity. I also note that the lack of a site wide stormwater management plan has been identified as a gap within the information and therefore there is potential for unacceptable stormwater effects to occur.

On the basis of the expert advice, I am satisfied that the remaining actual and potential adverse effects of the proposal will be acceptable subject to compliance with suggested conditions of consent. This conclusion is reliant on the Applicant providing additional information on the directional split of trucks to and from the site, the extent of the pine and eucalyptus plantations necessary to screen the fill sites, compensation for loss of wetland vegetation, clarification on any need for additional (retrospective) consents for vegetation removal and staging in relation to on-site disposal of contaminated material from Fill Area 3.

In terms of section 104(1)(b), I have established that the activity is not consistent with all of the relevant objectives and policies of the ODP and the RPS. In particular the proposal is not consistent with Te Ture Whaimana, which is a part of the RPS. These objectives are duplicated within the ODP. Furthermore, there are a number of other objectives and policies within the ODP which recognise and provide for tangata whenua's relationship with their taonga with which the proposal is not consistent with. I have also concluded that the proposal is not wholly consistent with objective 10.2.8 and policies 10.2.9 and 1A.6.4 as there is not adequate information to confirm that appropriate stormwater infrastructure is provided.

As per section 104(1)(c) I note that the application is not consistent with the WTEP in relation to Te Ture Whaimana.

The proposal has the potential to be contrary to Part 2 of the Act. With regard to sections 6 – 8 of the Act and on the basis of submissions, the application does not recognise and provide for the relationship of Maaori with their taonga, provide for kaitiakitanga or active protection in a manner consistent with the principles of the Treaty of Waitangi. Therefore, the proposal does not promote sustainable management specifically in providing for the cultural well-being of tangata whenua.

In conclusion, my recommendation is that the application be refused.

18.0 WEIGHTING BETWEEN OPERATIVE DISTRICT PLAN AND PROPOSED DISTRICT PLAN

As the outcome is the same under both the ODP and PDP, no weighting exercise is necessary.

19.0 CONCLUSION

After having considered the application in accordance with those matters required under s104, my recommendation is that the application be refused. I note that should further information be presented at the hearing which addresses matters raised in this report, it may be suitable that I revise this recommendation.

I conclude that:

- Waste disposal and extractive activities are provided for in the Rural Zone/General Rural Zone as discretionary activities where the potential adverse effects are able to be avoided, remedied or mitigated; In this case I find that there is potential for adverse effects to arise in relation to cultural values noting that submissions have identified that the proposal will not enhance the mana and mauri of water, land, fauna, flora and people. I also note that the lack of a site wide stormwater management plan has been identified as a gap within the information and therefore there is potential for unacceptable stormwater effects to occur.
- The remaining actual and potential adverse effects of allowing the activity can be adequately avoided, remedied or mitigated via the mitigation measures proposed in the application, the technical reviews and subject to the imposition of the suggested conditions (provided in **Appendix M**) so that the effects on the environment will be acceptable. This is on the basis that the applicant confirms the following points:
 - Clarification over the directional split of trucks arriving to and from the site, noting that the assessments have been undertaken on the basis of a 50/50 split.
 - The extent of the pine and eucalyptus plantations necessary to screen the fill sites from view be provided in a plan
 - Details of additional compensation works to offset the effects of indigenous vegetation and habitat loss within wetland areas is provided. Without the additional mitigation measures, the proposal may give rise to adverse ecological effects.
 - The need for additional consents required for removal of indigenous vegetation undertaken without obtaining resource consent
 - Clarification over the staging of works in relation to contaminated soils within Fill Area 3, noting that stockpiling may be unavoidable should a fill area not be ready to receive material.
- While the proposal is in keeping with the intent of a number of the objectives and policies of the ODP and the PDP, it is contrary to the objectives and policies which recognise and provide for tangata whenua's relationship with their taonga and the need to implement Te Ture Whaimana. Furthermore, due to the lack of a stormwater management plan, there is potential for unacceptable stormwater effects to occur. Thus, the proposal is not consistent with the objectives and policies which seek that adequate infrastructure is provided.
- The proposal has the potential to be contrary to Part 2 of the Act. With regard to sections 6 – 8 of the Act and on the basis of submissions, the application does not recognise and provide for the relationship of Maaori with their taonga, provide for kaitiakitanga or active protection in a manner consistent with the principles of the Treaty

of Waitangi. Therefore, the proposal does not promote sustainable management specifically in providing for the cultural well-being of tangata whenua.

WAIKATO DISTRICT COUNCIL

S42A Report

Appendix A

Application documentation summary

APPENDIX A – SUMMARY OF APPLICATION DOCUMENTS

Application – Link provided in Notice of Hearing

Assessment of Effects - Proposed Overburden & Managed Fill Activity - Riverview Road Huntly. Prepared by Paua Planning Ltd, dated 12 July 2022, Report version 04. This includes the documents within the following appendices:

- Appendix 1: Completed Application forms
- Appendix 2: Maps
- Appendix 3: Certificate of Titles
- Appendix 4: Pre-Application Meeting Minutes
- Appendix 5: Table of Historic Resource Consents
- Appendix 6: Management Plans
- Appendix 7: Tables of Reasons for Consent & Objectives and Policies
- Appendix 8: Geotechnical Assessment Reports
- Appendix 9: Erosion and Sediment Control Plans and Reports
- Appendix 10: Contaminants Discharge and Waste Acceptance Reports
- Appendix 11: Air Quality Reports
- Appendix 12: Ecology and Water Quality Assessments
- Appendix 13: Archaeological Assessment
- Appendix 14: Visual & Landscape Assessment
- Appendix 15: Noise Assessment
- Appendix 16: Traffic Impact Assessment
- Appendix 17: Iwi Consultation
- Appendix 18: Consultation
- Appendix 19: Draft Set of Conditions
- Appendix 20: Miscellaneous Information
- Appendix 21: s92 Requests & Responses
- Appendix 22: NES-FW Wetland Assessment

Additional Information - Attached

Email dated 29/08/2022 from Michael Parsonson

Email dated 05/10/2022 from Kate Madsen and attachments.

Julia Masters

From: Michael Parsonson <michael@southernskies.co.nz>
 Sent: Monday, 29 August 2022 3:20 pm
 To: Julia Masters
 Cc: Kate Madsen; Sue Simons
 Subject: FW: Gleeson - further questions

Hi Julie

Thanks for sending this enquiry. Kate is on leave and has asked me to respond in her absence.

My initial response to the Beca request is that the information sought is already provided where relevant and is otherwise not relevant to the proposal. The proposal is to fill three areas; two being in gullies and one in a site that drains to a gully via an existing drainage channel. There will be no change to overall direction of flows from the sites. There are existing stabilised tracks to each site. The additional impervious surfaces will be tip heads.

The runoff from each fill area will be directed to the sediment retention ponds (SRPs) that will provide some attenuation of flows that, while not calculated, would offset changes in surface water hydrology between vegetated ground and open fill surfaces. The open areas will be staged and progressively stabilised. All runoff will be treated by the SRPs in accordance with the regional guideline and best practice, including chemical treatment to enhance sediment retention.

Clean water diversions will be installed, and these will pick up upper gully flows and discharge to the lower gully so that the overall catchment of the gully does not change. All outlets (clean water and SRP) will be monitored and if necessary, cloth lined and riprapped to ensure erosion is avoided at those points. This is all standard practice that is required by the regional guideline and the Erosion and Sediment Control Plans for the proposal.

Runoff from the acid sulphate soil pad is detained and then drains to the quarry, as that same area already does.

No floodplains will be impacted or altered by the proposal.

In short, all the information the Beca needs to assess those effects has been provided. But if they would identify specific areas in the info that they need us to expand on, we'd be happy to do that.

Thanks and regards

Michael

From: Kate Madsen <kate@pauaplanning.co.nz>
 Sent: Thursday, 25 August 2022 12:47 pm
 To: Michael Parsonson <michael@southernskies.co.nz>
 Subject: Fwd: Gleeson - further questions

Hi Michael,

I'm on leave until 6th sept - would you kindly respond to DE's query below Re stormwater and cc me in? Thanks. Hopefully not too major.

Kate Madsen

Begin forwarded message:

From: Julia Masters <julia@kineticenvironmental.co.nz>
 Date: 25 August 2022 at 12:41:17 PM NZST
 To: Kate Madsen <kate@pauaplanning.co.nz>
 Subject: RE: Gleeson - further questions

Hi Kate

I hope you are having a nice holiday.

I note your emails to/from Emma and Sheryl. To echo what Sheryl said, we have been discussing hearing dates at our end too and hopefully we will have that nailed down soon. There are a lot of parties to coordinate.

In addition to the further information below, I have a query from Council's Development Engineer in regard to stormwater. As a bit of background, the Development Engineer at Waikato District Council (i.e. the Council staff member) who was reviewing the application has passed this one onto an external consultant (Beca) to review on Council's behalf. They have noted that no stormwater assessment has been provided and have asked for site specific, comprehensive stormwater management report that *"will need to focus on permanent effects such as overland flow path management/changes, scour/erosion management, effects on the downstream receiving environment and floodplain related issues. Some of which may be straightforward or minor, but this should be investigated, assessed and evidenced by the applicant."*

I have chatted to WRC about this issue as stormwater sits more appropriately with them, in particular as consents for stormwater discharge are sought. My understanding is that that they haven't requested any further information in this regard. However, on the basis of Waikato District Council's Development Engineer's comments, I consider this to be gap in the application. The information focuses on erosion and sediment controls and not stormwater. I also note that matters relating to stormwater are raised in the submissions. Can you provide some comments on this please.

Kind regards,

Julia Masters
 Senior Planner

027 4136 085
julia@kineticenvironmental.co.nz

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 ENVIRONMENTAL

Kinetic Environmental Consulting Limited
 Level 1, 71 London Street, Hamilton 3204
 PO Box 9413, Hamilton 3240
kineticenvironmental.co.nz

From: Kate Madsen <kate@pauaplanning.co.nz>
 Sent: Friday, 19 August 2022 3:16 pm

To: Julia Masters <julia@kineticenvironmental.co.nz>
 Subject: RE: Gleeson - further questions

Hi Julia,

We are getting onto these matters below – will respond in the near future. Would you kindly follow up re hearing date now submissions are closed?

I am heading away on leave until 6 Sept this afternoon, but taking my laptop so will continue to dialogue over the next couple of weeks :)

Kind Regards,
 Kate Madsen
 Director – Paua Planning



Environmental & Social Impact Assessments - Resource Consents - Planning Advice and Action

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From: Julia Masters <julia@kineticenvironmental.co.nz>
 Sent: Friday, 5 August 2022 2:50 PM
 To: Kate Madsen <kate@pauaplanning.co.nz>
 Subject: Gleeson - further questions

Hi Kate

Below are some points that I would like you/your experts to address please. Apologies for not sending these through earlier, I have been playing catch up after leave in the lead up to notification. These are matters that came up as questions during the peer review of my s95 report or are points raised by the peer reviewers.

General Matters:

1. The internal haul roads to the fill areas are to be formed/upgraded with a width of up to 15m and with a grade not exceeding 10% (as per the Team TIA). Can you provide an estimate of the volume of earthworks required for this? Will these haul roads all be constructed at the start of the works or as required?

Transportation – Report attached

2. Can you confirm that adequate manoeuvring space is provided for opposing truck and trailer units through the gates and around at weighbridge noting position of low walls and ramp. Potential for delays at weighbridge causing queuing/waiting on River Road.
3. Will trucks cover and secure loads prior to exiting the site?
4. Please comment on trip generation numbers (see section 4 of the Gray Matter review). Gray Matter considers a 50% of the trucks being used for both cleanfill and aggregate loads and in a mix of truck and trailers is a more appropriate scenario and that new trips generated by the clean fill activity could be around 60-70vpd.

Ecology – Report attached

5. Confirm whether their construction and operation will affect any indigenous vegetation, including wetland vegetation downstream of the existing ponds in FA 4 and FA 2.
6. Quantify the extent of indigenous vegetation to be cleared, including self-established indigenous understory beneath the redwoods to allow for robust compensation assessment.

In terms of the hearing date, my understanding is that Council and WRC want to wait until the closure of submissions. But I will keep asking.

Kind regards,

Julia Masters

Senior Planner

027 4136 085

julia@kineticenvironmental.co.nz

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Julia Masters

From: Kate Madsen <kate@pauaplanning.co.nz>
 Sent: Wednesday, 5 October 2022 12:17 pm
 To: Julia Masters
 Cc: 'James Gleeson'; 'Seth Pardoe'; 'Shawn McLean'
 Subject: FW: Gleeson - further questions
 Attachments: Internal Site Circulation Haul Roads.jpeg; Response to Re_ Gleeson and Cox Fill Consent Application_ _Wetland Ecological Effects.pdf; Pest Animal Management Plan.pdf; Fill 2 and 4 ESCP_Rev D.pdf; Fill 2 ESCP-002-01 Rev E.pdf; Fill 2 ESCP-002-01A Rev A.pdf; Fill 4 ESCP-004-01 Rev E.pdf; Vegetation quantification in FA2 and FA4.pdf

Hi Julia,

Apologies – I was incorrect in my response below in saying that all trucks are covered. Trucks are covered as required and/or appropriate, and to comply with the Official NZ Truck Loading Code produced by Waka Kotahi.

Kind Regards,
 Kate Madsen
 Director – Paua Planning



Environmental & Social Impact Assessments - Resource Consents - Planning Advice and Action

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From: Kate Madsen <kate@pauaplanning.co.nz>
 Sent: Tuesday, 4 October 2022 4:41 PM
 To: 'Julia Masters' <julia@kineticenvironmental.co.nz>
 Cc: 'Emma Cowan' <Emma.Cowan@waikatoregion.govt.nz>; 'Sheryl Roa' <Sheryl.Roa@waikatoregion.govt.nz>; 'Seth Pardoe' <seth.pardoe@gleesonquarries.co.nz>; 'Shawn McLean' <shawn.mclean@gleesonquarries.co.nz>; 'James Gleeson' <James@gleesoncox.co.nz>
 Subject: RE: Gleeson - further questions

Hi Julia

Sorry about the delay. See responses in red below.

Kind Regards,
Kate Madsen
Director – Paua Planning



Environmental & Social Impact Assessments - Resource Consents - Planning Advice and Action

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From: Julia Masters <julia@kineticenvironmental.co.nz>

Sent: Friday, 5 August 2022 2:50 PM

To: Kate Madsen <kate@pauaplanning.co.nz>

Subject: Gleeson - further questions

Hi Kate

Below are some points that I would like you/your experts to address please. Apologies for not sending these through earlier, I have been playing catch up after leave in the lead up to notification. These are matters that came up as questions during the peer review of my s95 report or are points raised by the peer reviewers.

General Matters:

1. The internal haul roads to the fill areas are to be formed/upgraded with a width of up to 15m and with a grade not exceeding 10% (as per the Team TIA). Can you provide an estimate of the volume of earthworks required for this? Will these haul roads all be constructed at the start of the works or as required?
 - a) The haul road in & out is already constructed to suit the quarry operations. However the route out will be reformed once the next stripping campaign has been completed based on the benching sequence, this is expected to commence in the next 3-5 months and will take approx. 7-9 months to be fully ready. Therefore the egress haul road route will be constructed as required with the exit at the front of the quarry.
 - b) We note the traffic management system in the quarry is a one way system, and this will be the same for the managed fill operation. Please see attached plan which demonstrates one way system.
 - c) There are some existing haul roads with a gradient more than 10% - these have been operational within the quarry for years. Is the gradient a district plan standard or an engineering standard? It is proposed

to use existing haul roads wherever possible, and look to re-engineer gradients only if Council insist. The traffic evidence at the hearing will address this.

- d) Any earthworks cut required to adjust the gradient of haul roads will be included within the managed fill capacity – circa 2M tonnes, and will be used the same as overburden – to line the fill areas where necessary and form clean water diversion bunds etc. The volume of earthworks for roads is too difficult to estimate at this stage, so has not been separated out.

Transportation – Report attached

2. Can you confirm that adequate manoeuvring space is provided for opposing truck and trailer units through the gates and around at weighbridge noting position of low walls and ramp. Potential for delays at weighbridge causing queuing/waiting on River Road.
 - a. There is a weighbridge proposed to be installed up near the fill site and not near the existing weighbridge at the quarry entrance/ exit. See attached circulation plan - the area at the very top of the quarry on the ridge (in daylight area) at the widest part contains the new weighbridge locality.
 - b. The weighbridge will be set up similar to the existing weighbridge so that trucks & trailers can either go one way or the other without the need to turnaround to enter one way only
 - c. The product in will be weighed and measured in tonnes
 - d. Inclusion of a 'Circulation and Loading Management Plan' is accepted as a condition of consent.
 - e. It is accepted that the left turn bay north of the entrance is marked with shoulder markings
3. Will trucks cover and secure loads prior to exiting the site?
 - a. Trucks & trailers on entry will need to have covered loads as a matter of course if they are bringing in fill material.
 - b. If contaminated fill such as asbestos is accepted, there are specific rules under legislation that all material/ loads are wrapped with a specific plastic and sealed. Accepting of condition that all loads exiting the site must be covered - Some vehicles have electric covers and they can often be seen covering their loads on entry to the weighbridge before heading out the gate, vehicles with manual covers do pull up outside the quarry gates and this is well off the road way to roll them out.
 - c. These matters will be covered in both the Fill & Site Management Plan, and the Asbestos Fill Management Plan (see section 7)
4. Please comment on trip generation numbers (see section 4 of the Gray Matter review). Gray Matter considers a 50% of the trucks being used for both cleanfill and aggregate loads and in a mix of truck and trailers is a more appropriate scenario and that new trips generated by the clean fill activity could be around 60-70vpd.
 - a. *Gleeson are adamant that the truck ratios previously provided are correct in that almost all trucks will be Gleesons, and all trucks will be backloaded – including any other contractors - backloading creates efficiencies and this therefore improves competitiveness. Gleeson are accepting of additional trucks being as per applied for – an additional 12 trucks (24 movements) per day.*
 - b. *However, Andrew Hunter (TEAM Traffic) does not consider that even if 50% of the trucks delivering cleanfill leave with backloads, this still does not result in adverse impacts on traffic that are more than minor.*

Ecology – Report attached

5. Confirm whether their construction and operation will affect any indigenous vegetation, including wetland vegetation downstream of the existing ponds in FA 4 and FA 2.
 - a. Yes, have always stated that SRP/managed fill area will impact on indigenous vegetation (as all vegetation is to be cleared). Please see plans/memo attached. Two small areas of induced wetlands have been delineated; works will be within 100m of these wetlands (one at base of FA2, one at base of FA4), but will not impact on the wetlands due to robust ESC measures being implemented, and only discharging treated water.
 - b. This does not change the activity status, as will remain non-complying overall.
 - c. The ESCP's have been updated, showing how the SRP's have been moved to ensure they are well outside the areas of 'induced' wetland habitat. (see attached)

- d. Additional mitigation (by way of riparian planting) around these induced wetted areas is to be offered.
6. Quantify the extent of indigenous vegetation to be cleared, including self-established indigenous understory beneath the redwoods to allow for robust compensation assessment.
 - a. See attached Envoco report – 3,327m² of indigenous vegetation and 9 mature native trees will be lost between FA2 and 4 – likely to be lower than this given amount of exotic pest plans within gullies.
 - b. 9,465m² of terrestrial planting is proposed within EMP (and has been completed), giving a mitigation ratio of 1:2.84 (loss:gain).

In terms of the hearing date, my understanding is that Council and WRC want to wait until the closure of submissions. But I will keep asking.

Kind regards,

Julia Masters
Senior Planner

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Erosion and Sediment Control Plan
Fill Area 2 and 4

Prepared for

Gleeson Quarries Huntly Limited

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Scope

This Erosion and Sediment Control Plan (ESCP) has been prepared to support the resource consent application for the filling of Fill Area 2 and 4 for Gleeson Managed Fills, Huntly. A managed fill operation is proposed for Fill 2 and 4 to the north of Gleeson Quarries Ltd.'s Huntly Quarry on Riverview Road, Huntly.

The ESCP has been prepared in general accordance with the Waikato Regional Council Technical Report No. 2009/02 *Erosion and Sediment Control Guidelines for Soil Disturbing Activities, January 2009* (TR2009/02).

Other documents relied upon in the preparation of this ESCP are:

- AEE
- *Geotech Report*
- *Gleeson Quarries Huntly Limited – District and Regional Resource consents for new fill sites within quarry landholdings Ecological Impact Assessment*; 14 November 2019, prepared by Boffa Miskell (Ecology Report)
- *Huntly Managed Fill: Wetland Peer Review*; dated 24 December 2021, prepared by Stantec. (Wetland Peer Review)
- *Wetland review: Gleeson Managed Fill Ltd wetland areas. Prepared for: Waikato Regional Council*; dated 1 March 2022, prepared by Nicholas Singers Ecological Solution. (WRC Wetland Review)

This ESCP describes the erosion and sediment control (ESC) methodology to be implemented during the establishment and filling of Fill 2 and 4.

A separate ESCP has been prepared for Fill Area 3.

Location and Site Description

The proposed fill sites are located off Riverview Road, south of the Huntly township. The proposed fill sites (Fill 2 and 4) are shown on Figure 1. The two fill areas drain to two separate watercourses, termed watercourse 1 and 2, shown on Figure 1. Both watercourses drain to the Waikato River.

Access to the fill sites will be through the current Gleeson's Quarry entrance and along existing quarry roads before linking to a new/upgraded road that will lead to the separate fill sites (indicative alignment shown on Figure 1).

The sites are described in detail in both the AEE and the Ecology Reports.



Figure 1: Location map Fill 2 and 4 with indicative access from Riverview Road.

Fill Area 2

Fill 2 consists of a westerly orientated steep sided gully system. The proposed filling operation covers approximately 4.5ha and once filled to capacity will contain up to 717,000m³ of managed fill.

Indigenous vegetation is located to the west of the fill area. The indigenous vegetation is classified as a Significant Natural Area (SNA) by the Waikato District Plan. Fill 2 is located outside of the SNA.

The site is currently vegetated with gorse, weeds and areas of pasture. Pine trees were harvested from this gully area in mid-2015 and remnant slash is present.

Fill 2 contains an existing dam/farm pond that was constructed for stock watering. The Wetland Review states that the 1979 aerial image shows earthworks downstream of the pond and wetland at its upstream margin, providing evidence that this area was created sometime between 1973 and 1979. The WRC Wetland Review concludes that the upstream wetland is artificial as defined by the National Environmental Standards for Freshwater Regulations 2020 (NES: FW 2020) and has formed as a consequence of the farm pond that was constructed for stock water. The ecology report identifies that the base of the gully contains an ephemeral watercourse described as having negligible ecological value. Fill 2 drains to Watercourse 1, as shown on Figure 1, which is part of the Lake Waahi and Lake Puketirini catchment. Lake Waahi subsequently discharges into the Waikato River.

An extent of natural inland wetland is identified at the toe of the gully in the general vicinity that it joins the main valley invert. An additional, small, transient induced inland wetland that has formed on forest harvest debris has been identified within gully, downstream of the fill footprint.

Fill Area 4

Fill 4 is a moderately sloping gully feature that drains to Watercourse 2 (Figure 1). The proposed filling operation covers approximately 5.21ha and once filled to capacity will contain up to 800,000m³ of managed fill.

The site is currently vegetated with pasture, gorse and weeds. As with Fill 2, the pine trees within Fill 4 have recently been harvested and remnant slash is present.

The Ecology Report identifies that two watercourse branches in the upper reaches that converge to form a single main stem. The western branch contains a 50m long ephemeral watercourse with no defined stream

channel. The main channel has been defined as an intermittent stream. This watercourse drains to Watercourse 2, as shown on Figure 1, which is located within the Waikato River catchment.

The Ecology Report states that a small artificial wetland is located in the downstream section of the middle reach constructed through the bunding of the watercourse to form a forestry track.

The Wetland Review states that an image shows a constructed stock dam in the aerial image dated 1963.

The WRC Wetland Review states that the evidence presented strongly suggests that the area where wetlands occur within Fill sites 2 and 4 were both formerly dryland and the aerial images support this.

The WRC Wetland Review concludes that the wetlands are artificial as defined by the NES: FW 2020.

Since the reports noted above were prepared, one additional small induced wetland has been identified downstream of the farm pond. That has been indicated on Drawing ESCP-004-01 Rev E.

Description of Works

Fill 2

Approximately 717,000m³ of managed fill is to be imported to Fill 2 over an area of 4.5ha.

Prior to the commencement of filling, a silt fence will be installed below the proposed SRP 2.

SRP 2 has been located a minimum of 100m upstream of the natural inland wetland located near the toe of the gully, and a minimum of 11m upstream of the small and transient induced wetland area within the gully. While Fill 2 will comprise a cumulative total area of 4.5ha, clean water diversions will be used to limit the catchment area of SRP 2 to no more than 3ha. This allows the SRP to be orientated across the gully and achieve the minimum separation from any wetland. Drawings ESCP-002-01A Rev A and ESCP-002-01 Rev E show the methodology for constructing the SRP, and the initial stages of the gully filling.

The SRP is proposed to provide for a minimum of 900m³ of storage volume, sized at 3% of the total contributing 3ha catchment area. Design details are provided in Appendix A.

The maximum 3ha catchment area of the SRP will be maintained by adjusting the location of the clean water diversions.

The initial construction of SRP 2 will be the installation of temporary clean water diversions to minimise the area draining to the SRP site, temporary bunding and diversion of immediate upstream gully flows (if any during summer), and the installation of silt fence below that works site. All organic and unsuitable material will be removed from the footprint of the SRP. It is likely that subsoil drainage will be required to be installed below the SRP and up through the base of the gully. The SRP will be constructed using locally own and potential some clean overburden from elsewhere within the quarry. Its bases and embankments will be compacted to engineer standard, certified by the project engineer. Once installed, the outer embankments and surrounding area will be stabilised with topsoil, seed and mulch. Unsuitables and topsoil stripped from the site will be stockpiled at a location to be confirmed by the project engineer. Silt fence will be used to treat sediment laden runoff from the stockpile.

Once the SRP is constructed, the clean water diversions will be relocated, and dirty water diversions installed to direct gully runoff to the SRP. The stock water pond will be dewatered and then the unsuitables within the gully progressively stripped and underfill drainage installed as fill progresses.

All runoff from the fill extent will be directed to the forebay of the SRP for treatment. Subsoil drainage will continue up the gully extent.

Any area that will remain undisturbed will be diverted away from the SRP using clean water diversions (perimeter bunds). All clean water diversions will be stabilised immediately upon construction.

The fill area will be progressively stripped, setup and filled following the geotechnical engineer's recommendations.

The filling operations will be appropriately staged and managed to restrict the active filling area to 3ha.

Fill 4

Approximately 800,000m³ of managed fill is to be imported to Fill 4 over an area of 5.21ha.

The fill will be treated by one SRP has been designed with a contributing catchment area of 4.4ha, providing a minimum storage volume of 1,320m³. Clean water diversions will be used to divert adjacent clean/stabilised area away from the SRP and maintain its maximum catchment at no more than 4.4ha. Design details for the SRP and DEBs are provided in Appendix A. The SRP will be located at least 25m from the induced wetland. Drawing ESCP-004-01 Rev E shows the SRP location and other ESC features. The establishment works will comprise the installation of the SRP and diversion bunds / channels. This will require the installation of a silt fence below the works area, and temporary clean water diversions immediately upstream of the SRP site and stabilising the existing access tracks into the SRP site.

The farm pond will be dewatered by pumping to the gully. Accumulated sediment and unsuitables will be excavated and moved to Fill 2 for drying and placement.

Underfill drainage will be installed and the SRP will be constructed using locally own and potential some clean overburden from elsewhere within the quarry. Its bases and embankments will be compacted to engineer standard, certified by the project engineer. Downstream batters will be topsoiled, seeded and mulched.

Once the SRP is constructed, upstream clean water diversions will be installed to limited the SRP catchment to 4.4ha and dirty water diversions will be installed to direct runoff to the SRP. All clean water diversions will be immediately stabilised. Temporary clean water diversions associated with the ARP construction will be removed. Gully stripping will be undertaken, with material to be stockpiled at a location to be confirmed by the project engineer. The stockpile will be managed with silt fence.

Underfill drainage will be installed within the gully and then further stripping and filling will commence following the geotechnical engineer's recommendations.

Any area that will remain undisturbed will be diverted away from the SRP using clean water diversions (perimeter bunds). All clean water diversions will be stabilised immediately upon construction.

The filling operations will be appropriately staged and managed to restrict the active filling area to 3ha.

Erosion and Sediment Control Specifications

Erosion and sediment control will be installed and maintained in accordance with TR2009/02.

Access

Access will be constructed/upgraded from the existing quarry entrance. An access road will be constructed from the quarry to Fill 2 and 4 as indicatively indicated on Figure 1. The quarry wheel wash at the quarry entrance will be used by fill trucks to minimise sediment tracking onto Riverview Road.

Tip Heads

A stabilised tip head will be established at the uphill edge of each fill. All road going trucks accessing the site will stay on stabilised surfaces.

Silt Fences

Silt fences will be used extensively to manage runoff during the construction of the SRPs. The silt fence will remain in place at least until the outer margins of the SRPs are permanently stabilised. If the silt fence is proposed to remain in place it must be returned up either side of the SRP emergency spillway in order to allow the spillway to activate as designed.

Clean Water Diversions

Clean water diversion bunds, likely constructed using stripped topsoil, will be at least 550mm in height and will be stabilised. Any sections greater than 2% gradient that may be prone to erosion will be further protected with rock lining. The outfalls of the clean water diversions will be rock lined to prevent erosion. Clean water catchment areas are typically small, due to the location of fill sites being within a gully system.

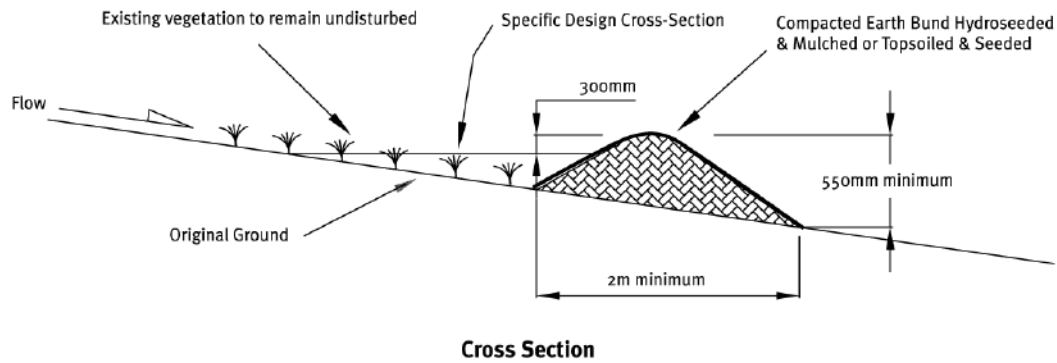


Figure 2: Cross-section of a clean water diversion bund.

Table 1: Clean water diversion sizing details.

Clean water diversions							
Area	5% AEP rainfall depth (mm)	Catchment Area (maximum)	Peak Flow (m ³ /s)	Base Width (m)	Slope (minimum)	Diversion capacity (m ³ /s)	Size (including minimum 300mm freeboard)
Fill 2	121mm	2.0ha	0.250	0.5	2%	0.36	550
Fill 4	121mm	2.0ha	0.250	0.5	2%	0.36	550

Dirty Water Diversions

Dirty water diversions will direct sediment laden runoff to the sediment control measures. The dirty water diversions have been sized to provide diversion capacity up to the 5% Annual Exceedance Probability (AEP) storm event, plus a freeboard of 300mm. Perimeter bunds / dirty water diversions located around the fill areas will be a minimum of 650mm high. Any sections greater than 2% gradient that may be prone to erosion will be further protected with rock lining.

Calculations are provided in Table 2.

Table 2: Dirty water diversion details assuming maximum dirty water catchment area.

Perimeter Bunds (dirty water diversion)							
Area	5% AEP rainfall depth (mm)	Catchment Area (maximum)	Peak Flow (m ³ /s)	Base Width (m)	Slope (minimum)	Diversion capacity (m ³ /s)	Size (including minimum 300mm freeboard)
Fill 2	121mm	4.5ha	0.805	0.5	3%	0.91	600
Fill 4	121mm	5.21ha	0.932	0.5	3%	0.95	650

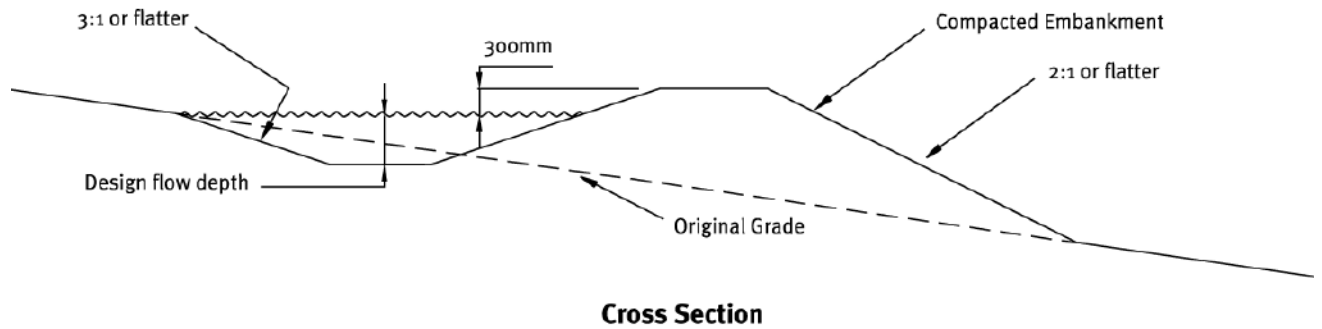


Figure 3: Cross-section of a dirty water diversion.

Sediment Retention Ponds

The SRPs will be constructed to provide a minimum storage volume of 3% of the maximum contributing catchment area. The design details for the SRPs are provided in Appendix A.

Fill 2

Fill 2 SRP has a maximum catchment area of 3ha and will be constructed in accordance with TR2009/02. The fill operation will be managed and progressively stripped and stabilised such that the exposure ground with its contributing catchment will be less than 3ha at any given time. Moreover, during site establishment opportunities to further minimise the catchment within clean water diversions will be investigated and if possible, implemented.

Fill 4

Fill 4 SRP has been designed to cater for 4.4ha. The SRP will be sized and constructed in accordance with TR2009/02. The minimum storage volume will be 1,320m³.

The fill operation will be managed and progressively stripped and stabilised such that the exposure ground with its contributing catchment will be less than 3ha at any given time. Moreover, during site establishment opportunities to further minimise the catchment within clean water diversions will be investigated and if possible, implemented.

General

Additional weight will be placed in the manholes of the SRPs to prevent movement or displacement in the event that the SRPs fill to capacity with water.

Each SRP will be constructed with a forebay that will provide an additional 10% volume of the pond.

Filling will commence once the SRP has been commissioned and as-built certified.

The SRPs will be cleaned of sediment when no more than 20% full. That material will be disposed of back into the fill site. The SRPs will be located to allow access for removing sediment from the pond.

Decanting Earth Bunds (DEBs)

Fill 4

Two DEBs will be utilised during Fill 4 filling for the lower portion of the fill extent, adjacent to the SRP. Both DEBs will be sized for a maximum catchment of 2,700m², with a minimum storage volume of 54m³.

The design details for the DEBs are provided in Appendix A and will be constructed in accordance with TR2009/02.

Stockpiling

Stockpiles will be located within the footprint of the SRP catchment. If a stockpile is required during the construction of the SRP, that will be treated by silt fence until such time as the SRP is established.

Stockpiles will be stabilised if they are not to be used for a continuous period of more than one month.

In addition to the progressive stabilisation noted above, stockpiles will be stabilised over winter.

Stabilisation

Progressive stabilisation will be undertaken as working areas are completed. Both Fill 2 and 4 will be managed appropriately to limit the amount of exposed area within each fill area to 3ha.

Stabilisation will comprise temporary mulching or permanent topsoiling and seeding to establish grass.

The access tracks and tip heads will be stabilised with aggregate.

Chemical Treatment

Chemical treated will be employed for both SRPs to enhance settlement and sediment retention. Chemical treatment will be implemented in accordance with a Chemical Treatment Management Plan (CTMP) that is to be certified prior to any earthworks associated with Fill 2 and 4 commencing. The treatment system will be monitored and maintained in accordance with the CTMP.

Dust Management

Dust management will be one of prevention. The main source of dust will likely be from trucks moving to and from the fill sites. In order to minimise dust generated by truck movements, the access tracks will be sheeted with aggregate. Vehicle speeds along the access route will be limited to a maximum of 20km/hr and a water cart is available to dampen the route if required.

The site is screened from sensitive receivers by topography and trees.

Water will be used to dampen the site if dust is identified as likely to discharge beyond the site boundary.

Progressive stabilisation of completed/filled areas will be undertaken to reduce the amount of exposed earth.

In the unlikely event that objectionable levels of dust do arise from the fill operation, the incident will be investigated, and the appropriate amendments made to site operations and/or management as required. The investigation will include an assessment of the reasons for the event, mitigation measures and of proposed and ongoing management initiatives to ensure the effect is avoided.

As-Built Certification

Prior to each fill area commencing, as-built certification of the ESCs will be provided to the Waikato Regional Council within five working days of the completion of the construction of these controls. The as-built certification will confirm that the controls have been constructed in accordance with the ESCP and TR2009/02.

Monitoring and Maintenance

Monitoring Procedures

The site will be regularly inspected during the filling operation and until the site is fully stabilised. The aim of these inspections is to ensure that all ESC devices are installed correctly and then operate effectively throughout the duration of the works. Any potential problems will be identified immediately, and remedial works will be promptly carried out.

The inspection programme that will be implement by the delegated Gleeson Quarries staff member will consist of:

- Weekly site walkovers to inspect and determine the effectiveness of all ESC devices installed on site;
- Pre-rain event: Prior to all forecast rainfall events, additional inspections will be made of ESC devices to ensure that they are fully functioning in preparation for the forecast event.
- Rainfall Events During rainfall events inspections will be made of ESC devices, subject to health and safety restrictions, for example inspections will not be undertaken at night.
- Post-rain event: Following all rainfall events, inspections will be made of ESC measures to ensure that all controls have performed as expected and to identify any maintenance requirements.

Any remedial works will be documented during these monitoring inspections and immediately undertaken.

Trigger Event Monitoring

Additional site monitoring and reporting shall be undertaken in response to the following rainfall trigger events:

- ≥15mm in one hour; or
- ≥25mm in 24 hours

Within 24hours of the occurrence of a rainfall trigger event, investigation, response, and reporting shall be undertaken against the following sediment retention pond performance triggers:

- pH (to demonstrate it does not fall outside the range of 6 to 9);
- Total suspended solids, to demonstrate it is not greater than 100 g/m³ or the sediment retention pond/s stormwater treatment is 90% treatment efficiency;
- Turbidity

The results of the investigations and sampling shall be reported to the Waikato Regional Council within 15 working days of the corresponding rainfall trigger event, including any contingency actions undertaken in response to exceedance of a trigger value.

Removal of ESC Measures

The removal of any erosion and sediment control measure from any area where soil has been disturbed as a result of the exercise of this consent will only occur after consultation and written approval has been obtained from the Waikato Regional Council. In this respect, the main issues that will be considered by the Waikato Regional Council include:

- The quality of the soil stabilisation and/or covering vegetation;
- The quality of the water discharged from the rehabilitated land; and
- The quality of the receiving water

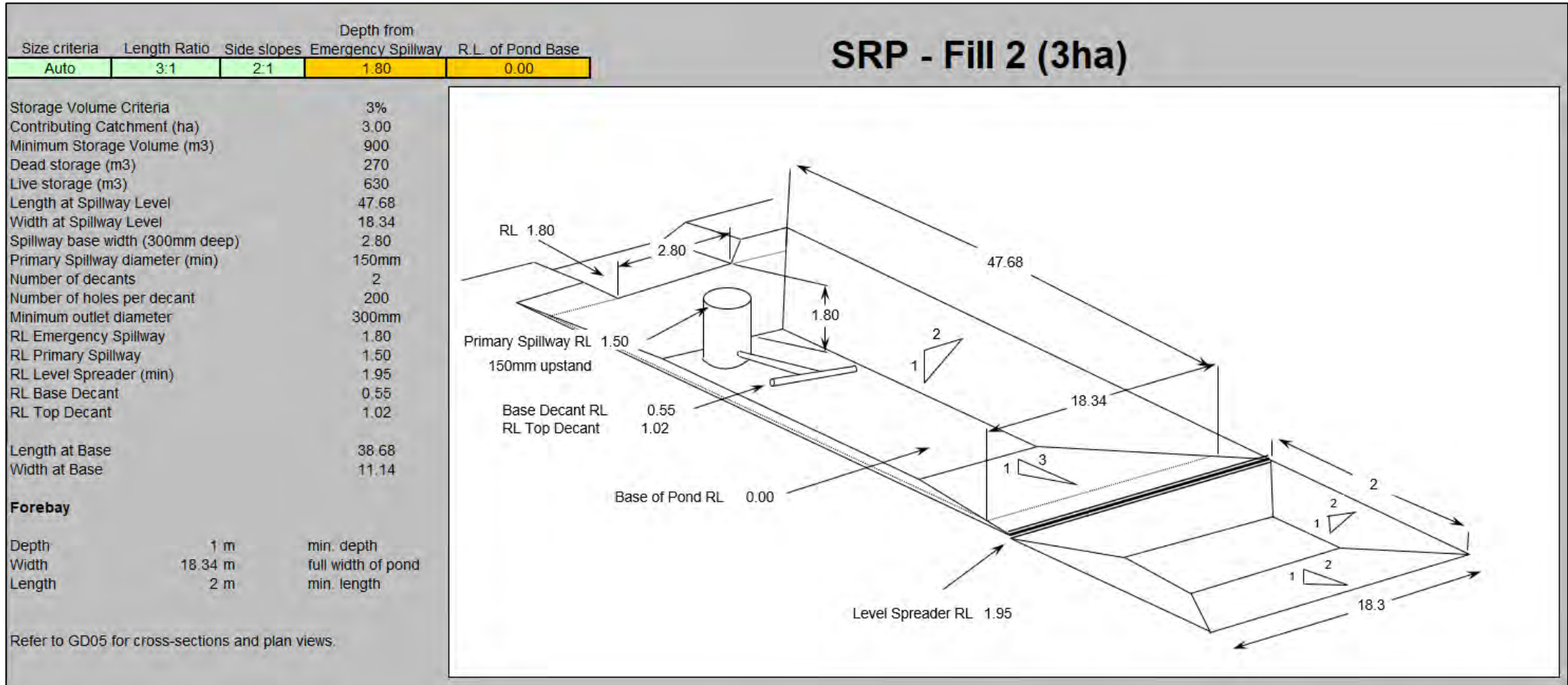
Site Personnel

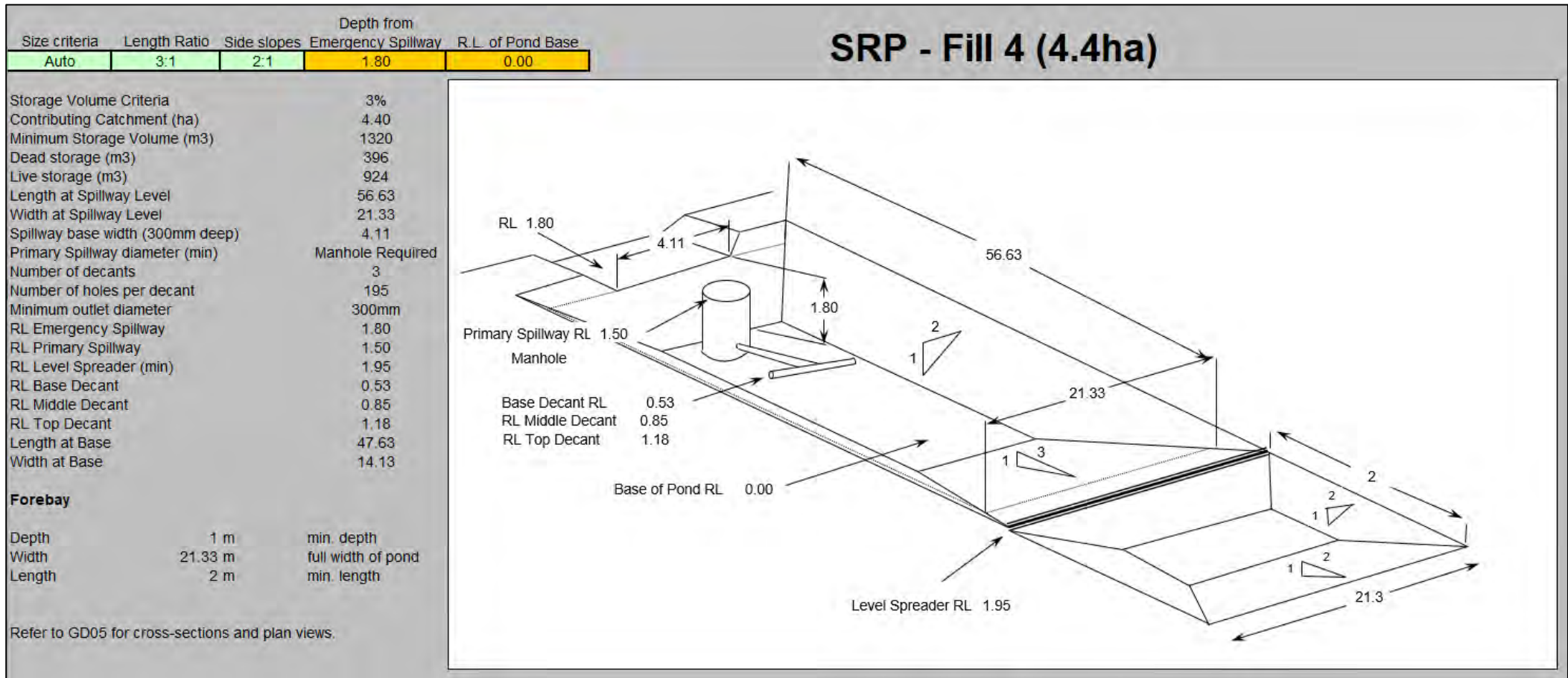
The Quarry Manager, will have overall responsibility for the works on site and will oversee that day to day implementation of the ESCP to ensure the requirements of that document are met. The name and contact details for that role will be provide to WRC prior to the commence of works.

ESCP Changes

This ESCP is intended to be a live document and if the earthworks, filling methodologies or ESC measures for the anticipated work changes then an update / review of the ESCP drawings will be made before the earthworks/filling commence. Any changes to the ESCP will be confirmed in writing and provided to the Council for certification, prior to the implantation of any changes proposed.

Appendix A – Erosion and Sediment Control Drawings and Details





Appendix B – Chemical Treatment Management Plan

TBC

Construction Notes

Once Sediment Retention Pond 2 (SRP 2) is constructed (refer to ESCP-002-01A):

- Install clean water diversions to maintain the SRP catchment at no more than 3ha.
- Areas beyond clean water diversions to remain undisturbed or otherwise stabilised.
- Install dirty water diversions.
- Dewater stock pond to SRP.
- Strip unsuitables from gully and install underfill drainage.
- Strip topsoil.
- Place and compact toe bund and commence filling.

Fill 2
 Fill area: 4.5ha
 Volume: 717,000m³
 Area outside of clean water diversions to remain undisturbed or otherwise stabilised

SRP 2
 Catchment area 3ha
 Storage volume 900m³
 Dead storage 270m³
 Live storage 630m³

Area outside clean water diversion to remain undisturbed or otherwise stabilised.

SRP 2 catchment to be managed by clean water diversions so that it does not exceed 3ha.






100m buffer from main wetland

Induced wetland >10m from edge of SRP construction.

Area outside clean water diversion to remain undisturbed or otherwise stabilised.

Stabilised access and tip head.

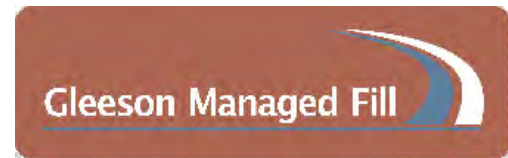
KEY
Erosion and Sediment Control

-  Clean water diversion
-  Dirty water diversion
-  Sediment retention pond
-  Silt fence
-  Fill area

NOTES

1. All erosion and sediment controls will be installed and maintained in accordance with Waikato Regional Council Technical Report 2009/02 'Erosion and Sediment Control Guidelines for Soil Disturbing Activities' (TR09/02).
2. All erosion and sediment control measures will be inspected weekly by the site foreman.
3. Clean out SRP before accumulated sediment reaches 20% of total volume.
4. Site monitoring will be undertaken before and immediately after rain as well as during heavy rainfall events. Any required maintenance or improvements to control measures will be undertaken immediately.

REV	DATE	REVISION DETAILS	APPROVED
A	07.03.22	Draft for review.	
B	16.06.22	For consent	
D	14.09.22	Wetland	
E	18.09.22	Secondary wetland	



Drawn
ZW

Checked
MP

Project	HUNTLY MANAGED FILLS
Title	Erosion & Sediment Control Plan Fill 2 – First Stages of Filling
Drawing No.	ESCP-002-01
Sheet No.	1

Construction Notes – Installation of Sediment Retention Pond 2 (SRP 2)

- Cut and progressively stabilise temporary access tracks into the SRP site.
- Install temporary clean water diversions to achieve gravity flow to the gully below the SRP works site. Install culverts to allow vehicles to cross the clean water diversion.
- Install temporary dam / bund as low as possible within the gully and diversion (pipes and / or pump).
- Install silt fence below works area.
- Excavate unsuitables from gully invert and install underfill drainage.
- Strip SRP site and adjacent slopes. Stockpile topsoil and install silt fence around stockpile. Stockpile location to be confirmed by site engineer.
- Cut and fill to construct SRP floor and batters.
- Stabilise all outer batters and exposed cuts with topsoil, seed and mulch. Remove silt fence.
- Install dirty water diversion to forebay or pond.
- Install new clean water diversion to service first stages of gully fill. Maintain maximum SRP catchment of no more than 3ha.
- Remove dam / bund and temporary clean water diversions.

SRP 2
 Catchment area 3ha
 Storage volume 900m³
 Dead storage 270m³
 Live storage 630m³

Silt fence installed prior to construction of SRP. Once these have been constructed and external batters of the SRP stabilised then the silt fence will be removed.

Temporary access route for SRP construction

Temporary clean water diversion. Install culverts under temporary access tracks.

Temporary bund and divert any gully flows






100m wetland buffer from main wetland in lower gully

Secondary wetland. Silt fence 11m setback from wetland.

Temporary access route for SRP construction

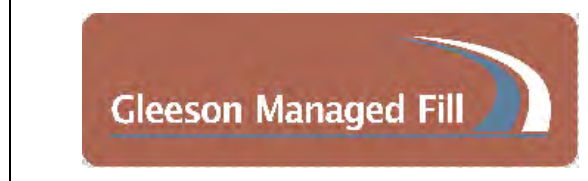
Stabilised access and tip head.

KEY
Erosion and Sediment Control

-  Clean water diversion
-  Dirty water diversion
-  Sediment retention pond
-  Silt fence
-  Site access

- NOTES**
1. All erosion and sediment controls will be installed and maintained in accordance with Waikato Regional Council Technical Report 2009/02 'Erosion and Sediment Control Guidelines for Soil Disturbing Activities' (TR09/02).
 2. All erosion and sediment control measures will be inspected weekly by the site foreman.
 3. Clean out SRP before accumulated sediment reaches 20% of total volume.
 4. Site monitoring will be undertaken before and immediately after rain as well as during heavy rainfall events. Any required maintenance or improvements to control measures will be undertaken immediately.

REV	DATE	REVISION DETAILS	APPROVED
A	18.09.22	Drawing update	



Drawn
ZW

Checked
MP

Project	HUNTLY MANAGED FILLS
Title	Erosion & Sediment Control Plan SRP 2 Establishment
Drawing No.	ESCP-002-01A
Sheet No.	1



Construction Notes

Prior to the commencement of filling, a silt fence will be installed below the proposed SRP.

Site SRP 4 in the approximate location of the existing farm pond.

Install temporary clean water diversions upstream of the farm pond and install silt fence downstream of the SRP site.

Dewater farm pond by pumping to the gully below.

Excavate accumulated sediment and unsuitables to Fill 2 for drying and placement.

Install underfill drainage.

Construct SRP. Downstream batters to be topsoiled, seeded and mulched.

Once the SRP is constructed, install and stabilise upstream clean water diversions to limit the SRP catchment to no more than 4.4ha.

Install dirty water diversions to direct runoff to the SRP.

Remove the temporary clean water diversions used for constructing the SRP.

Strip gully, with material to be stockpiled at a location to be confirmed by the project engineer. The stockpile to be managed with silt fence.

Install underfill drainage within the gully and then further stripping and filling will commence following the geotechnical engineer's recommendations.

The filling operations will be appropriately staged and managed to restrict the active filling area to 3ha.

Fill 4 Sediment Retention Pond
 Catchment area 4.4ha
 Storage volume 1320m³
 Dead storage 396m³
 Live storage 924m³
 The SRP discharges north to 'watercourse 2'.

 Refer to SRP design details on ESCP-004-02.

Fill 4
 Fill area: 5.21ha
 Volume: 800,000m³

Induced wetland
 ≥ 25m from SRP

SRP 4 will be established prior to gully will commencing. Refer to construction notes and Fill 2 and ESCP report.

Silt fence installed prior to construction of SRP. Once SRP has/ been constructed and external batters of the SRP stabilised then the silt fence will be removed.

Area outside clean water diversions to remain undisturbed or otherwise stabilised.

KEY	
Erosion and Sediment Control	
	Clean water diversion
	Dirty water diversion
	Sediment retention pond
	Silt fence
	Fill area

NOTES

- All erosion and sediment controls will be installed and maintained in accordance with Waikato Regional Council Technical Report 2009/02 'Erosion and Sediment Control Guidelines for Soil Disturbing Activities' (TR09/02).
- All erosion and sediment control measures will be inspected weekly by the site foreman.
- Clean out SRP before accumulated sediment reaches 20% of total volume.
- Site monitoring will be undertaken before and immediately after rain as well as during heavy rainfall events. Any required maintenance or improvements to control measures will be undertaken immediately.

REV	DATE	REVISION DETAILS	APPROVED
A	07.03.22	Draft for review.	
B	16.06.22	For consent	
D	14.09.22	Wetland	
E	18.09.22	Induced wetland	

		Project	HUNTLY MANAGED FILLS
		Title	Erosion & Sediment Control Plan Fill 4
Drawn ZW	Checked MP	Drawing No. ESCP-004-01	Sheet No. 1

Managed Fill - Proposed Traffic Management Plan (TMP)



Pest Animal Management Plan

Gleeson Quarries Huntly Ltd

Report prepared by Lachie Davidge, Ecologist. May 2021.

1. Overview

Gleeson Quarries Huntly Ltd are seeking resource consent to allow for quarry overburden disposal and imported clean-fill to four proposed fill areas at Gleeson Huntly Quarry. Gleeson Quarries Huntly Ltd have engaged Envoco Ltd to undertake ecological restoration work to mitigate and offset the loss of wetland and indigenous terrestrial habitat associated with the development of the proposed fill areas.

To mitigate and offset the loss of existing ecological features resulting from the proposed works, the applicant has proposed to restore a gully/wetland area (c. 3.9ha) to the north-west of the fill sites. The area is classified as a Significant Natural Area (SNA) and contains an intermittent stream, remnant and regenerating native vegetation, as well as several wetlands. This area is to be permanently covenanted and restored. It will require stock proof fencing, pest animal and plant control, as well as native revegetation planting to increase its ecological value. This report outlines pest animal management for the compensation area, including monitoring, trapping and bait stations. It also includes the pest management data collected from December 2021 - September 2022.

2. Preliminary Monitoring

A preliminary monitoring plan has been designed for implementation within the 3.9ha mitigation area. This will be done utilising 18 tracking tunnels and 16 chew cards laid out at 50m intervals along the course of the mitigation site with their positions recorded on a GPS (Fig. 1). After deployment, tracking tunnels will be checked the following day, and chew cards will be checked after 2 days. Results will be analysed by appropriately qualified ecologists to determine what pest animal species are present within the area.

Pest monitoring will be conducted every 4 months to determine the abundance and distribution of pest species remaining within the restoration site. Monitoring will be conducted following the

same method described above and laid out as per Figure 1. This shall continue throughout restoration works (5 years or canopy closure whichever is longer).



Figure 1. Locations of pest animal monitoring devices over the 3.9ha compensation area.

3. Pest animal control grid

A pest animal control plan has been designed for implementation within the 3.9ha mitigation area. This pest animal control method utilises 23 DOC200 traps (targeting rats, mustelids, hedgehogs and mice), 3 Trapinator traps (targeting possums) and 11 Philproof bait stations (targeting all pests). Traps and bait stations shall be positioned at approx. 50m intervals across the site following the suggested layout provided in Figure 2. Locations will be recorded on a GPS and uploaded to a Geographic Imaging System. The traps and bait stations will be pre-fed for a period of two weeks to allow neophobic pest species to acclimatise to the traps before baiting begins. After the acclimatisation period, traps shall be set using the appropriate lure (mayonnaise, peanut butter or eggs) and then checked and maintained weekly by Envoco staff.

Bait stations are utilised on a quarterly basis with 'pulses' happening during four consecutive weeks. 200g of Brodifacoum (targeting possums and rats) or Pindone (targeting rabbits and

possums) poison baits will be used in each bait station and refilled weekly for a four week period four times per year.

Trap success rate (number of pests caught) and amount of poison bait taken from bait stations will be recorded to monitor changes in pest abundance and distribution on site. Locations of traps will be moved if their catch rate has remained low and if signs of pests (eg. droppings, trails, scratch marks on trees) are detected elsewhere.



Figure 2. Locations of DOC200 traps, trapinators and Philproof bait stations throughout the compensation area.

4. Pest management data

Table 1. Trapping data from December 2021 - September 2022

Species	Number caught
Ship rat (<i>Rattus rattus</i>)	51
Mouse (<i>Mus musculus</i>)	30
Norway rat (<i>Rattus norvegicus</i>)	5
Weasel (<i>Mustela nivalis</i>)	5
Hedgehog (<i>Erinaceus europaeus</i>)	3
Stoat (<i>Mustela erminea</i>)	3
Feral cat (<i>Felis catus</i>)	2
Total	99

Table 2. Bait station data from three 4-week pulses, using both Brodifacoum and Pindone poison baits.

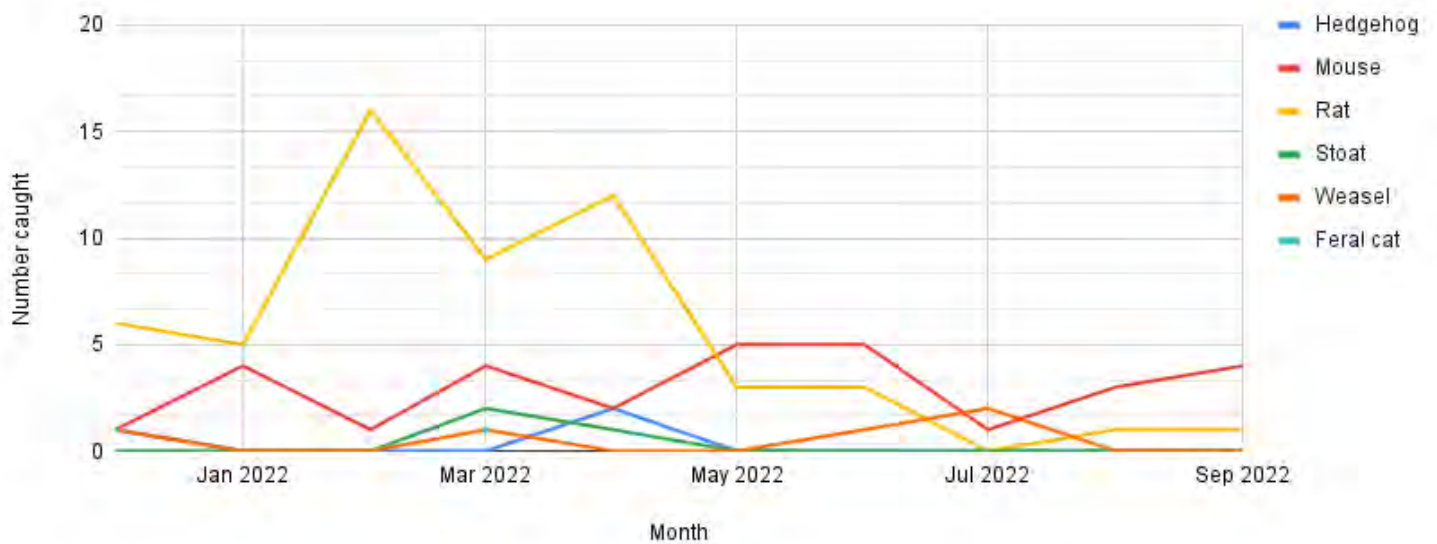
Date	Amount of bait taken
December 2021	4.4kg
April-May 2022	8.8kg
August 2022	1.34kg

Table 3. Proportion of prints present on tracking tunnels over 4 pest monitoring events.

Species	May 2021	September 2021	February 2022	July 2022
Mouse (<i>Mus musculus</i>)	33%	22%	50%	100%
Rat (<i>Rattus sp.</i>)	39%	39%	11%	0%
Possum (<i>Trichosurus vulpecula</i>)	0%	22%	61%	0%

Table 4. Proportion of chew marks present on chew cards over 4 pest monitoring events

Species	May 2021 (preliminary monitor)	September 2021	February 2022	July 2022
Mouse (<i>Mus musculus</i>)	0%	0%	26%	11%
Rat (<i>Rattus sp.</i>)	0%	0%	0%	0%
Possum (<i>Trichosurus vulpecula</i>)	46%	53%	58%	0%

**Figure 3.** Monthly catches of pest animals in DOC200 traps in the compensation area.

Response to WDC Memo Re: Gleeson and Cox Fill Consent Application: Wetland Ecological Effects. Karen Denyer, July 2022.

Response prepared by Ohara McLennan (Ecologist, Envoco Ltd) for Kate Madsen, Paua Planning Ltd.

Section	Statement	Response
1. Background	3. Ecological monitoring is proposed for bait take/trap catch in the compensation area and weed control, along with bat monitoring. Additional monitoring should be undertaken to document compensation planting and the outcome of pest monitoring (e.g. chew card /tracking card monitoring for residual pests).	Although this wasn't in the original EMP, we have already been carrying out pest and plant monitoring in line with best practice ecological restoration. This is outlined in our mitigation/monitoring report (Envoco, 2021).
1. Background	4. Water quality benefits to the Waikato River catchment are likely minimal as the compensation area flows to a supertrophic lake (Waikare) , however this is more appropriately assessed by your sediment and aquatic ecosystem experts.	Lake *Waahi is part of the Waikato river catchment. The lake discharges to the Waikato river through a controlled outlet on the Waahi stream.
3. Fill Area 3 and compensation works as at 7 June 2022	During our site visit on 7 June 2022 a team of Envoco staff were planting the gully of Compensation Area 4. We saw: <ol style="list-style-type: none"> 1. A recently installed fence encircling the gully (some areas of exposed soil on the fence benches were not yet grassed). 2. Carex and other native species had been planted in the wetland (under dead grey willow in Area 10 and among desiccated native swamp millet in Area 9). 3. Several predator traps. 4. Planting on side slopes and additional plants 	Four activities (1,2,3 and 5) match the mitigation package offered. Willow control is part of management unit 2a.

	<p>stacked presumably for subsequent planting.</p> <p>5. Defoliated willow trees.</p> <p>The first three of these activities match the mitigation package offered.</p>	
3. Fill Area 3 and compensation works as at 7 June 2022	Envoco staff informed us that the willow had been sprayed in the spring of 2021.	Incorrect detail, they were drilled and poisoned, not sprayed.
4.1. Terrestrial vegetation	Riparian planting in Compensation Area 4 may be an adequate offset, however the extent of vegetation affected should be specified to enable fair assessment of the compensation offered.	Resolved with recent site visit/memo:
5.2. Compensation offered	The activities proposed had already been completed as of 7 June 2022, and, with the exception of weed control and riparian planting, match those proposed by Paua Planning (letter to Emma Cowan 18 August 2020) to compensate the loss of wetland from Fill Area 3.	Weed control does match the activities proposed, 'Complete initial pest plant control in Management Units 2a, 3d and 6'. These areas are within/surrounding the wetland and involve control of willows, exotic grasses/rushes/herbs, blackberry, Chinese privet.
5.2. Compensation offered	<p>Wildland Consultants ecologist Dr Jamie MacKay notes in his letter to Bianca Schoeman (Gleeson and Cox) 12 November 2019 regarding Compensation Area 4 that:</p> <p>The wetland supports a range of indigenous plant species and, with the exception of some grey willow (<i>Salix cinerea</i>) immediately upstream of the pond, appears to be relatively free of pest plants."</p>	The area Jamie is referring to is the wetland habitat <u>within</u> the SNA (which is mostly native <i>Carex</i> sedges along the gully floor, upstream of pond). Does not mention exotic grasses/herbaceous weeds, willows, blackberry and Chinese privet downstream of the pond. This letter was written prior to the EMP (May 2020) so the downstream wetland area may not have been considered at first.
5.2. Compensation offered	I agree with Dr MacKay and the EMP that the wetland system in Compensation Area 4 is in relatively good condition (based on my 2022 visit), and in fact, in better condition than the EMP describes.	This statement is not really relevant, because it was referring to the upstream part of the wetland (as explained above), and the wetland has since undergone restoration to offset effects from FA3 wetland drainage. The EMP states that this part of the wetland is degraded. It is currently in good condition

		due to stock exclusion and pest plant/animal control - restoration of the area has been ongoing since around September 2021. Stock have been excluded since around this time with electric fences until the permanent fence was installed in March/April 2022. She didn't see the degraded condition of the wetland before it was restored.
5.5. Compensation summary	None of the proposals in the EMP will result in creation of additional areas of open water/sedgelands to replace those areas and habitats that will be lost from the fill areas.	Sedgeland/open water habitat was created in the compensation area, this is like-for-like mitigation for the fill areas, and is also similar to upstream naturally-occurring wetland habitat within the compensation area. Although swamp millet was removed, the restoration created similar habitat to what will be removed in fill areas.
7. Benefit to the Waikato River catchment	Lake Waahi is supertrophic (very nutrient enriched) and the compensation works along an 850 m stretch of waterway will have little potential to contribute to improvements in fish habitat and water quality in the Waikato Catchment.	Lake Waahi is part of the Waikato River catchment so the restoration of the compensation area will have an indirect positive effect on the Waikato river. One of the statements in the list (possibly from the WRPS) is '(i) the protection and enhancement of significant sites, fisheries, flora, and fauna', which the compensation does provide (being a degraded SNA).
7. Benefit to the Waikato River catchment	Buffer planting a wetland area with shrubs can perversely lead to increased sedimentation by exposing soil previously covered in dense grass. However, the wetland will likely trap these sediments, and removal of stock from the catchment will contribute to in a small way to water quality improvements.	Not sure why the first sentence had to be mentioned, wetland planting and the associated soil disturbance is a permitted activity and results in a net benefit to the ecosystem. Planting improves water quality by decreasing sedimentation, providing shade (cools water and improves habitat quality), decreases nutrients, pathogens/contaminants and chance of eutrophication. Planting also provides stability and sediment control for the cut fence benches (which were immediately hay mulched), provides habitat for in-stream and terrestrial fauna and creates an ecosystem similar to what would have been there in

		<p>the past (kahikatea-pukatea gully forest with sedgeland wetland).</p> <p>Excluding stock from wetlands has a significantly positive impact on wetland condition and water quality, as stock cause bank erosion, soil compaction/pugging, pollution, nutrient enrichment and habitat loss for freshwater species. There will be a benefit to the water quality of the Waikato River, even if it is small.</p>
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Quantification of indigenous terrestrial vegetation in Fill Areas 2 and 4

**Gleeson Huntly Quarry
Prepared for Paua Planning Ltd**

September 2022



Documentation

envoco

Specialists in Ecological, Horticultural, Environmental & Civil Work

Document title:	Quantification of indigenous vegetation in Fill Areas 2 and 4
Prepared for:	Paua Planning Ltd
Version:	Version 1 (September 2022)
Report prepared by:	Ohara McLennan, Ecologist
Reviewer:	Jacob Wright, Ecologist
Approved by:	Scott Lowry, Director

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1. Introduction

Gleeson Quarries Huntly Ltd and Gleesons Managed Fill Ltd are seeking resource consent for the disposal of quarry overburden material and imported managed fill within three proposed fill areas located at Gleeson Huntly Quarry, 300 Riverview Road, Huntly. To support the resource consent application, Envoco was engaged by Paua Planning (on behalf of Gleeson Quarries Huntly) to determine the area of indigenous terrestrial vegetation that will be affected by the works footprint of the fill areas and their associated sediment retention ponds. Defining the area of indigenous vegetation that will be lost due will allow for an accurate, robust assessment on the quantity of mitigation required.

2. Site description

Both fill areas have historically been used for agriculture and plantation forestry. Since the areas have been cleared of pine, invasive weed species such as gorse (*Ulex europaeus*), pampas (*Cortaderia selloana*) and woolly nightshade (*Solanum mauritianum*) have dominated the area. Recent aerial herbicide spraying has killed much of the broadleaf species in exposed areas, but vegetation within the sheltered parts of the gully has remained. Each fill area contains a constructed wetland that was built for stock watering and recreational purposes. These wetlands have already been measured and accounted for in mitigation calculations. Remnant indigenous vegetation occurs in both fill areas, mainly concentrated around the watercourses that flow down incised gullies.

3. Methods

A site visit was undertaken on 29/08/22 to assess the quantity of indigenous vegetation within the proposed works footprint of Fill Area 2 and Fill Area 4 (including proposed sediment retention ponds and silt fences). The proposed works footprint was defined by overlaying maps obtained from the site's erosion and sediment control plans (Southern Skies Environmental Ltd, 2022) onto Google Earth. Boundaries of the fill area, sediment ponds and silt fences were marked and uploaded onto a gps. The works footprint was assessed by a site visit with two ecologists. Larger areas of indigenous vegetation were marked on the gps and smaller areas were estimated in person. Waypoints and the gps track were uploaded onto google earth to obtain accurate measurements of area.

4. Fill Area 2

Indigenous terrestrial vegetation that lies within the impact area of Fill Area 2 consists of sparse regenerating scrub around the gully sides and remnant and regenerating trees and shrubs along the margins of the watercourse that runs west out of the catchment.

Scattered distribution of young mahoe (*Melicytus ramiflorus*) (<2m), kanuka (*Kunzea robusta*) (several trees >2m, few young seedlings), hangehange (*Geniostoma ligustrifolium*), hebe (*Veronica stricta*), mingimingi (*Leucopogon fasciculatus*) and karamu (*Coprosma robusta*) seedlings occur near the centre of the fill area around the wetland margins. There are two forest cabbage tree (*Cordyline banksii*) seedlings on the bank above the wetland, as well as patches of *Gahnia setifolia* and silver fern (*Cyathea dealbata*). Native ground cover species include kiokio (*Parablechnum novaezelandiae*), lace fern (*Paesia scaberula*), pohuehue (*Muehlenbeckia australis*) and shrubby haloragis (*Haloragis erecta*). Two mature tawa (*Beilschmedia tawa*) above the wetland are undergoing senescence due to aerial herbicide application.

An assemblage of indigenous trees, shrubs and herbaceous plants occurs along the riparian zone of the watercourse below the constructed wetland. The vegetation is typical of nearby remnant gullies, with common understorey species such as kawakawa (*Piper excelsum*), mahoe (*Melicytus ramiflorus*), pigeonwood (*Hedycarya arborea*) and tree ferns (*Cyathea spp.*), and mature karaka (*Corynocarpus laevigatus*), nikau (*Rhopalostylis sapida*) and pukatea (*Laurelia novaezelandiae*).

The quantity of indigenous vegetation in Fill Area 2 is detailed in Table 1 below.

Table 1: Descriptions of indigenous vegetation and their associated area within Fill Area 2.	
Description of indigenous vegetation	Approx. area
Patches of young regenerating vegetation (mostly mahoe, shrubby haloragis, kanuka, <i>Gahnia</i>)	68.5m ²
Remnant and regenerating vegetation in gully (mahoe, pigeonwood, kawakawa, hebe, akeake, hangehange, tree ferns, wineberry, karaka, nikau, pukatea)	1,210m ²
2 x mature tawa (undergoing senescence)	-
Total area of indigenous vegetation in Fill Area 2	1,278.5m²



Fill Area 2 showing works footprint, constructed wetland and areas of indigenous terrestrial vegetation.



Figure 1: Drone photograph of the gully system that drains Fill Area 2 (looking north).



Figure 2: Clay bank near constructed wetland containing regenerating indigenous vegetation.



Figure 3: Cluster of regenerating mahoe to the north of the wetland.



Figure 4: Indigenous vegetation along riparian margins of the gully.

5. Fill Area 4

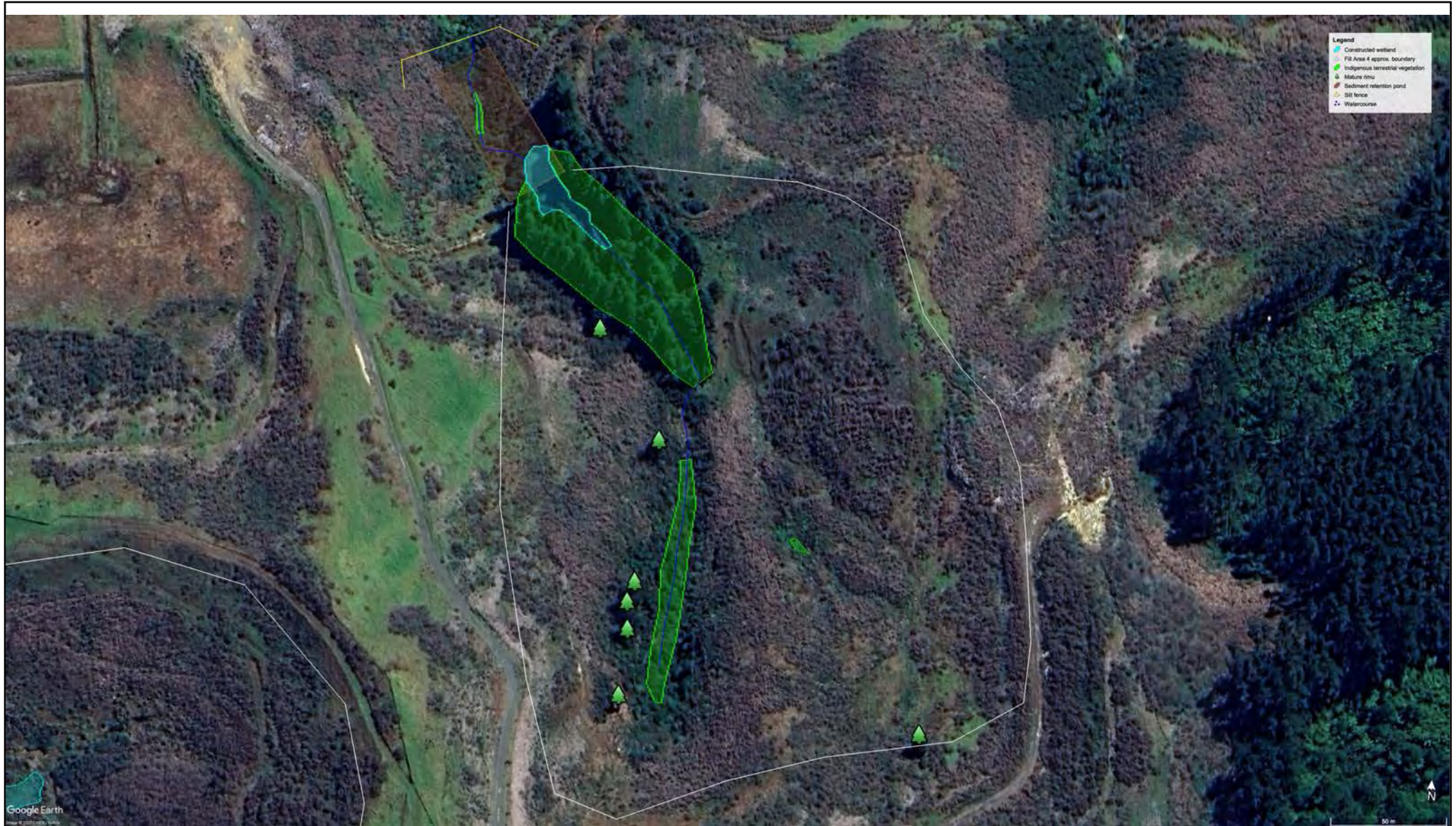
Indigenous terrestrial vegetation within Fill Area 4 consists of remnant and regenerating trees and shrubs within the gullies, regenerating native seedlings underneath the redwood (*Sequoia sempervirens*) stand and regenerating mahoe (*Melicytus ramiflorus*) along riparian margins below the constructed pond. Seven mature remnant rimu (*Dacrydium cupressinum*) (15-20m in height) are scattered across the fill area.

There is approximately 30% ground cover of native seedlings underneath the redwoods (*Sequoia sempervirens*), mainly consisting of silver fern (*Cyathea dealbata*), mahoe (*Melicytus ramiflorus*), kawakawa (*Piper excelsum*), hangehange (*Geniostoma ligustrifolium*), pigeonwood (*Hedycarya arborea*), karamu (*Coprosma robusta*), nikau (*Rhopalostylis sapida*) and several *Asplenium* ferns. Along the riparian margin upstream of the pond are remnant mature native trees including tawa (*Beilschmedia tawa*), pukatea (*Laurelia novaezelandiae*), mahoe (*Melicytus ramiflorus*), pigeonwood (*Hedycarya arborea*), red mapou (*Myrsine australis*) and several tree ferns (*Cyathea dealbata* and *C. medullaris*).

A farm track has separated the main gully from two upper gullies. The south-western gully contains a vegetation assemblage similar to the gully in fill area 2; early successional mahoe (*Melicytus ramiflorus*), kawakawa (*Piper excelsum*), karamu (*Coprosma robusta*), *Gahnia setifolia*, hangehange (*Geniostoma ligustrifolium*), akeake (*Dodonea viscosa*) and pigeonwood (*Hedycarya arborea*) with noxious weeds throughout (gorse (*Ulex europaeus*), woolly nightshade (*Solanum mauritianum*), pampas (*Cortaderia selloana*) and inkweed (*Phytolacca octandra*)). The smaller gully to the east contains several small mahoe (*Melicytus ramiflorus*) amongst the dead gorse (*Ulex europaeus*).

The quantity of indigenous vegetation in Fill Area 4 is detailed in Table 2 below.

Description of indigenous vegetation	Approx. area
Renegerating native seedlings under redwood canopy	932m ²
Remnant mature native trees (pukatea, tawa, mahoe, pigeonwood, red mapou)	160m ²
7 x mature rimu (15-20m)	-
South-west gully containing regenerating native vegetation	902m ²
Young mahoe in south-east gully	20m ²
Regenerating mahoe along riparian margin downstream of pond	35m ²
Total area of indigenous vegetation in Fill Area 4	2,049m²



Fill Area 4 showing works footprint, constructed wetland and indigenous terrestrial vegetation.



Figure 5: Regenerating native seedlings under redwoods.



Figure 6: Remnant native gully vegetation including tawa, black tree fern, pukatea and mahoe.



Figure 7: Remnant native gully vegetation in the south-western gully, mature rimu in background.



Figure 8: Stream channel below pond with regenerating mahoe on the riparian margins.

6. Summary and mitigation requirements - indigenous vegetation

A total of 3,327.5m² of indigenous vegetation and 9 mature individual trees will be lost as a result of the construction and operation of Fill Areas 2 and 4, including the footprints of their associated sediment ponds and silt fences. This is a conservative estimate and the true area of indigenous vegetation is likely to be lower given the amount of exotic pest plants within the remnant gullies.

Mitigation to offset the loss of indigenous vegetation has been proposed at a Significant Natural Area to the west of the quarry. Approximately 9,465m² of terrestrial planting (including buffer planting around the edges of the wetland and infill planting in forest gaps) was proposed and has been completed (as per Ecological Management Plan, Wildland Consultants, 2019). This results in a mitigation ratio of 1:2.84 (loss:gain). Enrichment planting proposed for the site includes a similar assemblage of mature gully vegetation that will be lost, and will also account for the 9 mature individual trees lost. This achieves no net loss of biodiversity values, and results in a net gain.

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WAIKATO DISTRICT COUNCIL

S42A Report

Appendix B

Notification decision report



Notification Report

Sections 95, 95A-95G of the Resource Management Act 1991

Reporting Planner:	Julia Masters	App Number:	LUC0488/22
Property Ref:	2015553	Site Visit on:	12 May 2022

Applicant:	Gleeson Managed Fill Limited
Property Address:	300 Riverview Road, Huntly
Legal Description:	<p>Fill Areas 2 – 4: Lot 9 DP 1278 and Pt Lot 10 DP 1278 (RT SAI49/243) DP 25272 (RT SA656/223) Pt Lot 9-10 DP 1278 (RT SA922/109)</p> <p>Compensation Site: Lot 1 DPS 75436 (RT SA57C/382)</p> <p>Access/Quarry Site: Lot 1 DPS 4285 (RT SA95C/651) Pt Lot 11 DP 1278 (RT SA200/118) Pt Lot 11 DP 1278 (RT SA200/119)</p>
Site Area:	573.8071 ha
District Plan:	Operative District Plan - Waikato Section 2013 Proposed District Plan - Decisions Version 2022
Activity Status:	Operative District Plan: Discretionary Proposed District Plan: Discretionary National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health – Controlled Activity
Zoning:	Operative District Plan: Rural Zone Proposed District Plan: General Rural Zone
Policy Area:	<p><u>Operative District Plan:</u> Aggregate Extraction Policy Area Transmission Lines Landscape Policy Area Waikato River Catchment Aggregate Resource Area (on wider site)</p> <p><u>Proposed District Plan:</u> National Grid Waikato River Catchment Aggregate Extraction Area Aggregate Resource Area (on wider site) Significant Natural Area (on wider site)</p>

Proposal:	<p>To establish and operate a managed fill disposal activity that imports material to deposit within identified gullies (Fill Areas 2-4) located north of an existing quarry within the same site.</p> <p>To undertake soil disturbance of a piece of land (within Fill Area 3) as per the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health</p>
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1.0 INTRODUCTION

Pursuant to s88 of the Resource Management Act 1991 (the Act), Paua Planning (the Agent) has applied on behalf of Gleeson Managed Fill Ltd (the Applicant) for land use consent to establish and operate a managed clean fill disposal activity that imports material to deposit within three identified gullies (Fill Areas 2, 3 and 4) located north of the existing quarry as well as accepting overburden from the quarrying activities on site. Combined the three fill areas have an estimated total capacity of 2,009,200m³. From a district perspective, the activities proposed include associated effects relating to traffic movements, noise, visual, ecology and earthworks.

1.1 Proposal

The fill operation is proposed to proceed in stages, commencing with Fill Area 2, progressing to Fill Areas 3 then 4. Figure 1 identifies the location of the fill sites and Table 1 below outlines the area and projected volume of each of the fill areas:

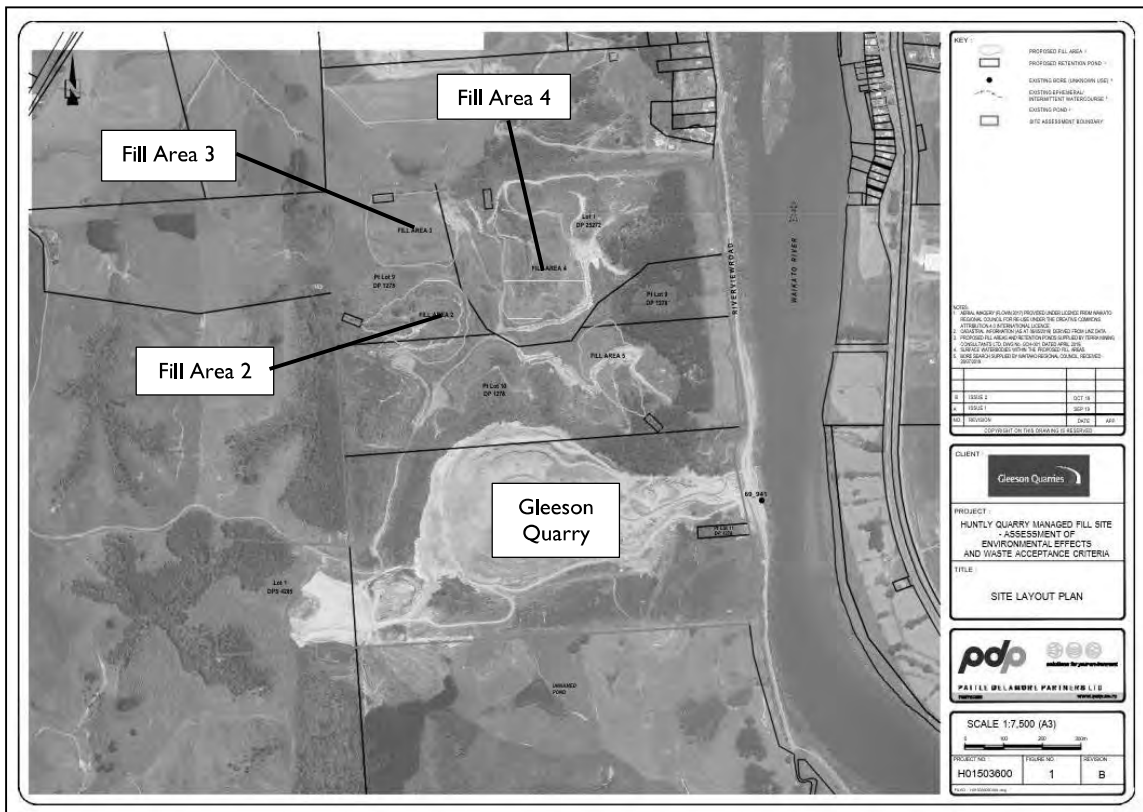


Figure 1: Fill Areas 2, 3 and 4

Table I: Fill Areas and Volume

Fill ID	Fill Area (hectares)	Projected Fill Volume (m ³)	Fill Material
Fill Area 2	3.8	632,600	Managed fill with asbestos containing material, cleanfill and overburden
Fill Area 3	4.2	576,600	
Fill Area 4	5.1	800,000	
TOTAL	13.1	2,009,200	

Section 8.1 of the Assessment of Environmental Effects (AEE) states that each stage involves:

- *“The removal of all vegetation and topsoil to expose a competent subgrade; and*
- *Reclamation of existing ephemeral and intermitted watercourses and artificial wetland areas and installation of drainage and recommended erosion and sediment control measures; and*
- *Construction (and maintenance) of sediment retention ponds at the base of each Fill Area with a water holding capacity of between 1300m³ and 1563m³ to retain and treat site runoff.*
- *Deposition of imported managed fill in accordance with geotechnical engineering recommendations with maximum deposits of 300,000m³ per annum.*
- *Importation of managed construction & demolition material which may include asbestos containing soil and material, peat, marine sediment, and acid sulphate soils.*
- *Restriction of exposed surfaces to a maximum of 3.0ha at any one time.*
- *Stabilisation of each gully in accordance with geotechnical recommendations before opening the next Fill Area for operation, with site rehabilitation occurring with 6 months of each Fill Area being completed and stabilised.*
- *Washing out of trucks within an identified and contained wash area located centrally to Fill Areas 2, 3, and 4 prior to trucks being loaded with aggregate from the operational quarry.*
- *Construction of necessary supporting infrastructure such as site office, parking/turning areas and inspection platforms.*
- *Formation and upgrades to existing internal access roads to provide stable and operational access to all Fill Areas.*
- *Discharge of treated (clean) water from sedimentation ponds into ephemeral streams which eventually discharge to the Puketirini Lake to the north (Fill Area 2) or the Waikato River to the east (Fill Areas 3 and 4).*
- *Generation of traffic movements associated with the importation of fill of up to 24 additional vehicle movements per day (over and above movements approved under the Gleeson Quarry land-use consent).*
- *Staged ecological enhancement of a 3.9ha compensation gully west of the subject site.*
- *Rehabilitation of the land on completion of each fill area with forestry, with natural overland flow paths formed to match the completed contours.”*

As noted, the site is located north of the operational Gleeson Quarry (consented as per LUC0035/11.05). The quarry operations which involve the removal of overburden, extraction of rock, crushing of rock, and sales, will remain the same. It is estimated that there is 674,940m³ of overburden that will need to be stripped and disposed of. A dedicated volume of 182,600m³ will be placed in Fill Area 5 (consented as per LUC0176/20) and the balance of 492,340m³ of overburden is proposed to be placed in the Managed Fill Areas 2 to 4 or to be exported from site.

In addition to overburden from the quarry, the type of managed fill material to be imported to site includes construction and demolition fill. This is defined and listed as acceptable materials in Section 4.2 of the Ministry for the Environment Cleanfill Guidelines with accepted low levels of contaminants to include asbestos, soils containing acid sulphate and marine

sediment. Typically, the fill will contain soil, rock, concrete, bricks, and glass, with less than 5% timber. Peat, a naturally occurring material is also to be accepted. The applicant has provided in their proposed conditions, a table which outlines the acceptable material (see Schedule Three).

Prohibited wastes are also listed in Schedule Three and include any material that exceeds the criteria in the Waste Acceptance Criteria agreed with Council. All green waste, tyres, bulk liquids, batteries, hazardous waste, coal ash or domestic/municipal waste are listed as prohibited.

Trucks will either be arriving and depositing fill directly into the open fill area or within a designated area from where the fill material (e.g., marine sediments) will first be managed and then be moved by machinery to the relevant area of the fill. Placed fill will be compacted by track rolling, the movement of site machinery/trucks etc. or by compactor if required.

A range of erosion and sediment controls are proposed for the works to control stormwater runoff and potential erosion/sediment discharge. In particular, filling will be staged to minimise the exposed areas within the overall fill site at any one time. Areas will remain undisturbed if possible, and the open area staging will be managed by progressive stabilisation of bare surfaces (topsoiled and grassed) on an ongoing basis as filling is completed. A maximum area of 3ha will be exposed at any one time. Straw/hay mulch, fabric or similar will be applied for temporary stabilisation as required.

Work areas will vary depending matters such as the type of material received, the season and the state of filling on the overall site. Some areas may be opened and closed several times during the life of that Fill Area, and both temporary and permanent stabilisation measures will therefore be used. Geotechnical assessments have been undertaken for the works to establish that the suitability and stability of the proposed fill areas. A series of recommendations are made which are proposed to be implemented alongside annual inspection, testing and monitoring.

Works are proposed to continue throughout the year i.e., no winter closures are proposed. A single fill area will be operational at any one time. Once FA2 (or 3) is half full, preparatory works on the next gully will begin to allow for continuous filling. Each fill area will be serviced by a Sediment Retention Pond sized according to the catchment of each fill area.

A Site and Fill Management Plan (SFMP) is provided which seeks to manage operations. This includes details on the proposed procedures and standards to show how compliance will be achieved with the relevant conditions of resource consents. It has been prepared in general accordance with the MfE and WasteMINZ guidelines. The SFMP includes the following:

- Filling operations (including hours of operations, staging, access etc.)
- Erosion and sediment management
- Contaminated soil management
- Noise management
- Traffic Management
- Dust Management
- Acceptance of fill
- Reporting and recording etc.

Fill is to be transported primarily by the applicant's own trucking business (Gleeson & Cox Ltd). At present, these trucks arrive at the quarry empty and leave full, with a load from the quarry. It is proposed that instead, the majority of these trucks will carry fill to the site, therefore entering full and leaving full. In addition to this, up 12 trucks per day are anticipated to deliver fill to the site from approved subcontractors. Table 2 below summarises the anticipated truck movements.

Table 2: Anticipated Truck Movements

	Quarry Extraction Rate (tonnes per annum)	Maximum Tonnes per day exported from GQ	Capacity of most trucks (tonnes)	No. of Opening Days	No. of Trucks per day	No. of truck movements per day
Original TIA assumptions in Quarry consent	1,800,000	6,546	26	275	252	504
Updated assumptions (quarry)	1,800,000	6,522 ¹	28	276 ²	233	466
Additional assumptions under proposed managed fill application	1,800,000 + 300,000m ³ (imported fill)	6,522 + 1,087m ³ (imported fill)	28	276	233 + 60	466 + 120 ³
Breakdown of 60 additional trucks per day:	Existing Gleeson trucks:			48		96
	Other contractors:			12		24
TOTALS				233 + 12 = 245		466 + 24 = 490
Notes:						
1. Tonnes of aggregate exported per day has lessened, as truck capacity has been increased						
2. Includes 52 Saturdays which are half days - statutory days are not included						
3. An assumption has been made 80 percent of the trucks carrying managed fill will be owned by Gleeson and Cox whilst the remaining 20% will be owned and operated by other organisations (12 trucks). Therefore, it is anticipated that all 60 trucks will be laden when delivering fill however not all the third-party contractors will back load with aggregate, whilst all the Gleeson and Cox trucks will be expected to carry a backload.						

The additional truck trips per day to utilise the managed fill site is likely to add in the order of two additional trips per hour onto the local road network. Trucks will access the site via the existing single entry and exit access to Riverview Road. The current internal haul roads (associated with quarry activities and previous farm/forestry activities) will be upgraded for heavy vehicles to access the various Fill Areas. They will have a width of 15m (to allow trucks to pass one another) and a grade not exceeding 10 percent. The earthworks necessary to form these roads is additional to the volumes outlined in table 1 above. Once trucks have tipped material into the Fill Area, the trucks will be washed/sprayed at the fill area. The operation will not be open to the public, the gate will be locked outside working hours and no unauthorised dumping will be permitted.

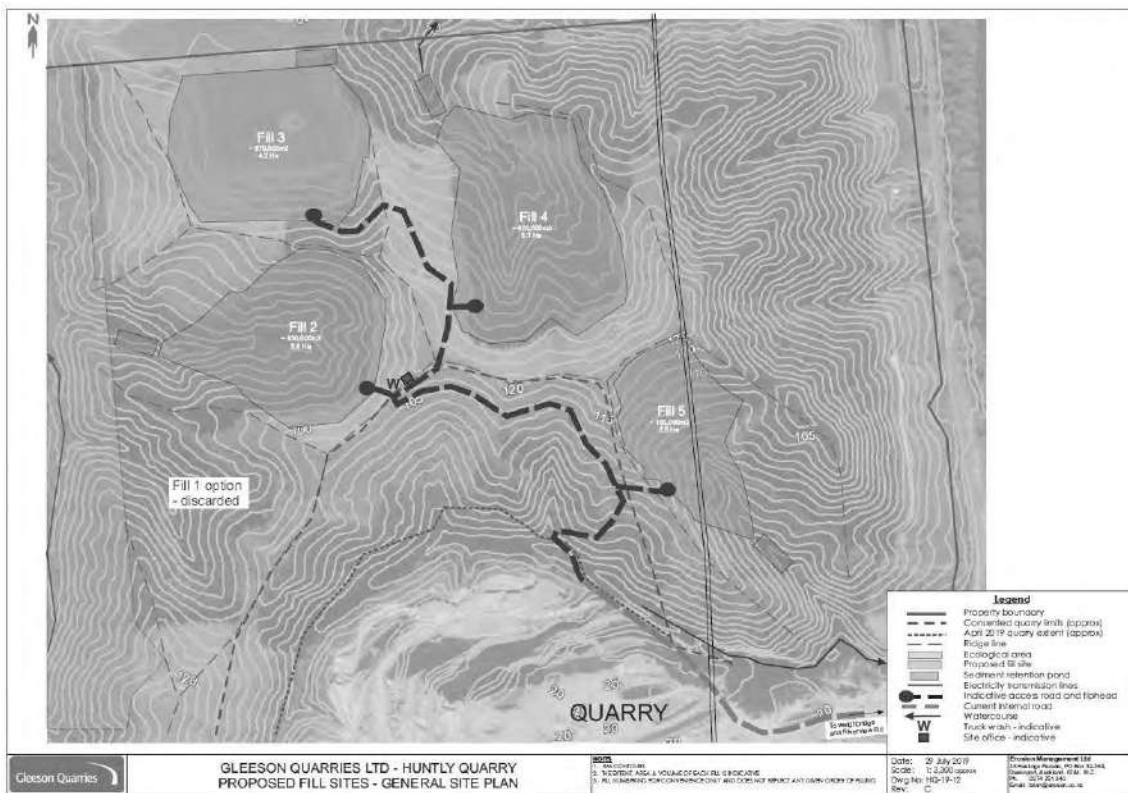


Figure 2: Fill Areas and Internal Roads

The following traffic movements will occur in association with the fill activity:

- Trucks utilising haul roads to access open Fill Site.
- Trucks manoeuvring at toe of Fill Site to dump fill.
- Machinery within Fill Area spreading dumped fill.
- Trucks within Fill Area re-positioning dumped fill.

The following hours of operation are proposed for all managed fill related activities:

- Monday to Friday (inclusive) 6am to 7pm
- Saturday 6am to 2pm
- No managed fill works shall be carried out on a Sunday or Public Holiday.

It is noted that these hours have been amended since lodgement of the application and differ to those set out in the AEE. In addition to this, the following hours of operation related to truck movements to and from the site entrance are proposed:

I October – 30 April

- Monday – Friday (inclusive): 5am to 8pm
- Saturday: 6am to 3pm
-

I May to 30 September

- Monday to Friday (inclusive): 5am to 6pm
- Saturday: 6am to 3pm

These hours are consistent with the hours of operation related to truck movements for the quarry as set out in LUC0035/11.05. The applicant proposes that there be a maximum of 6 trucks (12 movements) between 5am and 6am.

The nature of the fill activity is such that noise will be generated by machinery including trucks, a bulldozer, excavator, grader, watercart and compactor. The noise generated by the activity has been assessed as being able to comply with the following noise limits (as outlined in the

Proposed District Plan – Decision Version) at the notional boundary of any other site:

- 50dB LAeq, 7am to 7pm every day;
- 45dB LAeq, 7pm to 10pm every day;
- 40dB LAeq and 65dB LAmax, 10pm to 7am the following day.

Vegetation clearance will be necessary within the fill areas and for the construction of associated infrastructure such as the sediment retention pond and as a result a number of ecological assessments are provided with the application. The vegetation types are described in the application as consisting predominantly of pasture, gorse dominated scrub and with some native broadleaved scrub, wetland vegetation and broadleaf forest. Furthermore, wetlands are present within fill areas 2 and 4, although these have been classified as artificial in terms of the National Environmental Standard for Freshwater. The Waikato Regional Council has agreed with this assessment.

Removal of vegetation, the wetlands (a cumulative area of approximately 1869m²) and as a consequence of the activity in general will have an impact on the habitat of a range of fauna including native lizards, a range of native birds and bats. The applicant therefore proposes to undertake compensation works. These include fencing, pest and weed control, and planting at “compensation area 4” which is located on the site to the west of the fill areas as identified in Figure 3 below. This will occur within 3,600m² of wetland and 730m length of stream, with approximately 3.3ha of habitat to be protected. The proposed programme of works outlines that within the first year, stock proof fences will be built, and pest plant and animal control will be undertaken, along with site preparation. Within year two planting (in July and August) will be undertaken along with further pest plant and animal control. The programme then provides for follow up pest plant and animal control as required and monitoring of planting.

The applicant has also prepared a Bat Management Plan in relation to the loss of mature trees within Fill Area 4. It is understood that this Bat Management Plan was prepared in relation to Fill Areas 4 and 5, with the latter consented at an earlier date. The Bat Management Plan is yet to be implemented.

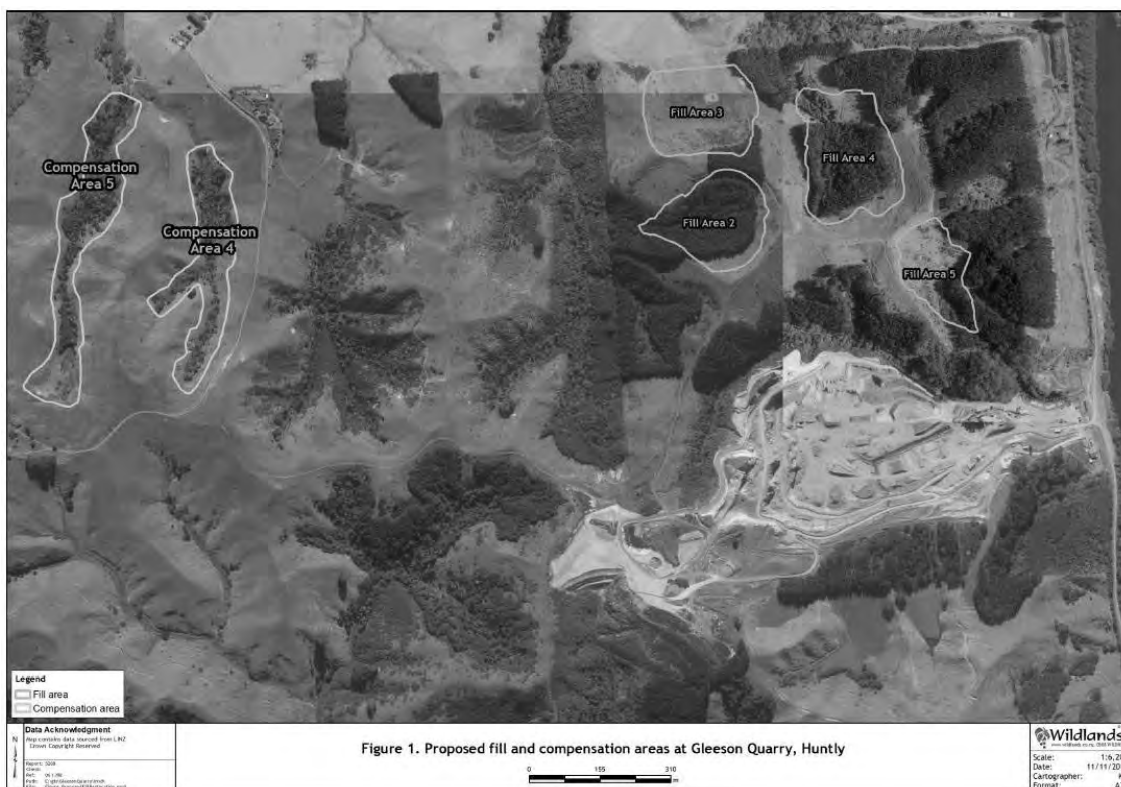


Figure 3: Proposed Compensation Area

On the basis of filling at the maximum rate of 300,000m³ per year, the activity will be completed in 7 years. However, the applicant has requested a term of 35 years for the consents required from Waikato Regional Council, to provide for the potential that the gullies are not used for managed fill and are used for the deposition of quarry overburden only. The quarry itself has about 50 years left to run dependant on the rate of extraction. The quarry is authorised to extract 1,800,000 tonnes per year. On this basis, the managed fill operation will not outlast the quarry operations.

1.2 Description of Subject Site and Surrounding Area

The subject site is owned by Gleeson Quarries Huntly Limited and is legally described as follows:

Table 3: Legal Descriptions

Legal Description	Size	Notes
Lot 9 DP 1278 and Pt Lot 10 DP 1278 (RT SA149/243)	68.9628ha	Fill Areas 2 - 4
DP 25272 (RT SA656/223)	23.0949ha	
Pt Lot 9-10 DP 1278 (RT SA922/109)	45.8678ha	
Lot I DPS 75436 (RT SA57C/382)	374.7741ha	Compensation Site
Lot I DPS 4285 (RT SA95C/651)	10.1171ha	Quarry Site and Access
Pt Lot II DP 1278 (RT SA200/118)	4047m ²	
Pt Lot II DP 1278 (RT SA200/119)	50.5857ha	

A full description of the site is provided in section 7 of the AEE. After visiting the site, I agree with this description and the sections in *italics* are copied from the AEE:

1.2.1 Site Description

“Gleeson Quarries Huntly Ltd is located just south of the main Huntly Township on the western side of the Waikato River, 3.1km south of the Tainui Bridge roundabout. The entrance of the site is located on the western side of Riverview Road and has a formed and sealed 12m wide vehicle crossing which provides access to the quarry site as well as to the proposed managed fill operation. Riverview Road runs parallel to the Waikato River, and undergoes a name change to Hakarimata Road a further 0.6km south of the quarry entrance.”



Figure 4: Site Layout with Current Contours

The existing landform relating to the proposed Fill Areas 2-4 rises steeply towards the west from the front boundary with Riverview Road, creating a natural physical landform buffer from the proposed Fill Areas. From this ridgeline, the Fill Areas comprise of a series of steep gullies and ridges, rising to a height of 100m above sea level, with the lowest point of the gullies being 50m above sea level. The ridgelines run both east to west and north to south, creating five distinct depressions in the landform. Fill Areas 2, 3 and 4 are located north of the existing quarry pit.

The geological basement foundation consists of greywacke rocks of the Hakarimata Formation, being part of the Triassic aged Newcastle Group. This is generally described as comprising indurated siltstone with fossiliferous sandstone within its upper parts. Overlying the basement rock are members of the Tertiary aged Te Kuiti Group including erosional remnants of the Waikato Coal measures, overlaid by Recent Taupo Pumice ash. As there is little exposure of fresher greywacke in this area north of the existing quarry extension plan, it has been deemed generally the least suitable for future mining prospects.

The land has historically been used for both farming, quarry associated activities and forestry logging. Farming has been limited due to the steepness of the terrain, which is predominately covered in rank pasture and weed species such as gorse. Small pockets of both native and exotic vegetation are dispersed over the site, tending to cluster in the existing valleys and adjacent to overland flow paths and small streams. The hillside and ridgeline closest to Riverview Road is clad in a pine plantation, most of which has been harvested. Towards the quarry entrance (northern side) there is an area of Eucalyptus trees and regenerating natives, planted by the quarry for screening purposes.

To the west of Fill Areas 2 and 3 the Proposed Waikato District Plan identifies a Significant Natural Area (SNA), which essentially runs parallel to the western boundary of Pt Lots 9 and 10. It is a 10-hectare regenerating bush area which is approximately 1km in length and has an existing stream which runs along this length, within the bush area.”

1.2.2 Wider Locality Description

“Huntly Quarries Limited is located north-east from the Gleeson Quarry site on the opposite side of the Waikato River next to State Highway 1. Huntly Quarries Ltd which is owned by I H Wedding &

Sons is still operational. It supplies all grades of metal, sand and clay and is visible from State Highway 1.

The Rotowaro open cut mine is located (approximately 6km distance when measured on the aerial image), west of the GQ site. The Rotowaro mine was purchased by BT Mining a joint venture of Bathurst Resources Limited in 2018 from Solid Energy. The Rotowaro mine is operational and based on the 2018 Annual report the coal production in the main pit should be completed in the early part of financial year 2019 and planning is in an advanced stage for the Waipuna West Extension.

Further West, (approximately 9km distance when measured on the aerial image) Puke Coal Limited is located. Puke Coal Limited is medium sized privately owned and operated mine. Puke Coal Limited also provides landfill services and can take certain types of waste including bunker end of life tyres.

To the north lies Lake Waahi and Lake Puketirini. Lake Puketirini is a former open cast coal mine (referred to as being Weaver pits) which operated between 1954 and 1993 by State Coal (Mindat, 2020). Lake Puketirini was formed when the former Weaver's Opencast Mine Pit was naturally flooded. The outflow at the western end of the lake discharges through a canal into Lake Waahi. Two one-way gates have been installed at the outlet of the canal into Lake Waihi to prevent water from Lake Waihi entering Lake Puketirini.

In 2006, Solid Energy New Zealand Limited gifted Lake Puketirini to Waikato District Council, and currently the lake is managed by Waikato District Council for swimming and recreational purposes (WDC, 2009). Overall, the lake has been artificially created and is heavily engineered and its original intended purpose was to be a contact recreational reserve, rather than an ecological sanctuary. The water clarity within the lake is very good, with a Secchi disc visibility of between 0.4 to 9.31 m (average of 4.1 m).

Lake Waahi is known to have low water quality values due to nitrate levels, which are a result of poor farming practices within the immediate region.

Further descriptions of the site relating to landform and vegetation are outlined in the proposal as well as existing site activities."

1.2.3 Specific fill area descriptions

Fill Area 2

Fill area 2 is located north west of the existing quarry pit. The area straddles the boundary of PT Lot 9 DP 1278 and PT Lot 10 DP 1278. The fill area is 3.8ha in size and will be able to accommodate an estimated fill volume of 632,600m³. This fill area is located partially within the Aggregate Extraction Policy Area/Aggregate Extraction Area as identified in both district plans. The PDP-DV shows a Significant Natural Area located to the west of Fill Area 2

Sections 7.16 and 7.17 of the AEE state the following with regard to Fill Area 2:

*"Fill area 2 is a natural closed valley with a west facing gully exit. The face of the hill slopes starts at a gradient of 1:2 and reduce to 1:4 at the ridgeline, and the elevation of the gully rises from 49 mRL to 110.5 mRL. In more general terms, the gully has a steep amphitheatre which rises to the east and lowers towards the western side where the toe of the fill area will be. There is an existing small ponding area at the base of the gully which eventually flows into an existing stream catchment. The original ecological investigation (Boffa Miskell 2019, see **Appendix 12**) recorded an area of wetland of 450m² at the base of the gully. The presence and location of a man-made farm dams within Fill Area 2, along with associated ponded areas, were noted by Gaia during geomorphic mapping.*

The vegetation for Fill area 2 generally comprises of a mixture invasive namely Gorse (Ulex europaeus) and native plant species namely Toetoe (Austroderia). A few older pine trees are also present in this area. The fill area is predominantly exotic species”



Photo 1: Fill Area 2 looking north west

Fill Area 3

Fill area 3 is located north west of the existing quarry pit. The area straddles the boundary of PT Lot 9 DP 1278 and Lot 1 DP 25272. The fill area is 4.2ha in size and will be able to accommodate an estimated fill volume of 576,600m³. This fill area is identified as having being use for the storage of hazardous waste dumps or dam tailings and constitutes a ‘piece of land’ under Regulation 5(7) of the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health.

Fill Area 3 is mostly flat with some natural topographical buffers. The natural hill slope on the southern side buffers it from Fill Area 2 and the hill slope on the western side buffers it from the SNA as identified in the Proposed Waikato District Plan. Fill Area 3 is predominantly covered in grass in the flatter areas and the hills are covered in gorse.

Fill area 3 is located approximately 50m from the shared boundary with the property to the north and 20m from the shared boundary to the east.



Photo 2: Fill area 3 looking south west

Fill Area 4

Fill area 4 is located north of the existing quarry pit. The area is wholly located within Lot 1 DP 25272. The fill area is 5.1 ha in size and will be able to accommodate an estimated fill volume of 800,000m³. High Voltage Power Lines run alongside eastern side of this fill area.

Fill Area 4 is a natural gully that runs south towards the north. The area is predominantly exotic species and covered with a pine trees and gorse. The pine trees provide a buffer to the east. The fill area is steep on the south eastern side and lowers towards the north west where the sedimentation pond is proposed.

There is a pond on Fill Area 4 within the lower area between a cluster of pine trees. There is also a drainage stream located at the northern section of the fill area. The stream is classified as ephemeral and in some areas an intermitted stream was also identified.



Photos 3: Fill Area 4 looking east

1.3 Legal Interests in the Property

The fill sites are located on Lot 9 DP 1278 and Pt Lot 10 DP 1278 (RT SA149/243) of 68.9628ha, D P 25272 (RT SA656/223) of 23.0949ha and Pt Lot 9-10 DP 1278 (RT SA922/109) of 45.8578ha.

The ecological compensation area is located on Lot 1 DPS 75436 (RT SA57C/382) of 374.7741ha.

The quarry site is located on Lot 1 DPS 4285 (RT SA95C/651) of 10.1171ha, Pt Lot 11 DP 1278 (RT SA200/118) of 4047m² and Pt Lot 11 DP 1278 (RT SA200/119) of 50.5857ha.

All sites are owned by Gleeson Quarries Huntly Limited. There are no interests registered on the Records of Title that would restrict the proposal from proceeding.

1.4 History

The quarry had been operating under existing use rights since the 1930's, resource consents from Waikato District Council were obtained to deepen the existing quarry floor and expand into the Payne Block. These are described as follows:

Resource Consent to undertake the removal and deposit of overburden material was granted on the 5 July 2000 (69 00 14). This resource consent was granted to remove native vegetation and deposit overburden at a rate of approximately 150,000m³ per year for a period up to 8 years. However, there is no timeframe specified within resource consent 69 00 14 and this is still an active consent. The current overburden location is partly shown in Figure 3 above (blue area).

LUC0035/11 was granted on 17 November 2010 to expand the quarry operation into the adjacent block referred to as the Payne Block. The expansion of the quarry extended the lifespan of the quarry for 30-50 years dependent upon the rate of extraction. The tonnages allowed under this consent were a five year average of 550,000 tonnes per year with a maximum of 900,000 tonnes per year. This Land Use consent identified and provided for a "Northern Dump Disposal Area" which, subject to conditions, is able to take overburden. This Area will be known as Fill Area 2.

LUC0035/11.01 was granted on 4 September 2014 and provided for an accelerated extraction rate by increasing tonnages to the current levels allowed being 650,000 tonnes per year over a five-year average and a maximum of 900,000 tonnes per year.

LUC0035/11.02 was granted on 1 March 2018 and provided for an accelerated extraction rate by increasing tonnages to 800,000 tonnes per year over a five-year average and a maximum of 1,000,000 tonnes per year.

LUC0035/11.03 was granted on 13 September 2018 and provided for an accelerated extraction rate by increasing tonnages to the current levels allowed being 1,000,000 tonnes per year over a five-year average and a maximum of 1,400,000 tonnes per year.

LUC0035/11.04 was a pre-application process that preceded this application. Pre-application advice was given regarding the increase in tonnage and on future activities relating to cleanfill.

LUC0035/11.05 was an application by new owners of Gleeson Quarry. The application sought to remove conditions that had been complied with and had no ongoing obligations, to increase tonnage allowed to be removed from the quarry and to provide for additional road debris mitigation. The noise limits were proposed to be changed and hours of operation for road traffic was introduced.

LUC0176/20 was an application to remove overburden material from the existing quarry and deposit the overburden material in an identified gully referred to as Fill Area 5. Consent was granted on 17 March 2021.

LUC0233/20 was lodged in November 2019 for the same activity for which resource consent is now sought. After being placed on hold for an extended period of time, the applicant withdrew the application on 14 April 2022, being the same that that LUC0488/22 was lodged.

History relating to the Regional Council consents can be found in the application in Appendix 5 to the application.

1.5 Process Matters

Table 4: Consent Processing Dates

Date	Description	Working days
14 April 2022	Application lodged under Section 88 of the Resource Management Act 1991 (RMA)	0
27 May 2022	Application put on hold under Section 92	27
23 June 2022	Further information received	27
13 July 2022	Public Notification	40

1.6 Specialist Reports

A number of specialist reports have been supplied in support of this application and the applications submitted to Waikato Regional Council. Where considered appropriate these have been peer reviewed as per the following table:

Table 5: Specialist Reports and Peer Reviews

Specialist Assessment	Prepared By	Peer Reviewed By
Transport	Traffic Engineering & Management Ltd – TEAM Traffic	Gray Matter
Landscape and Visual Effects	LA4 Landscape Architects	Mansergh Graham Landscape Architects
Noise	Hegley Acoustic Consultants	Marshall Day
Ecology	Boffa Miskell Limited and Wildlands	Papawera Geological Consulting
Contaminated Soil	EHS-Support	Alan Parkes – Waikato District Council
Geotechnical	GAIA Engineers	Baseline Geotechnical
Stormwater, and Erosion and Sediment Control	Southern Skies Environmental	Beca

2.0 REASON FOR THE APPLICATION

2.1 Operative Waikato District Plan

The Waikato District Plan: Waikato Section was made operative on 5th April 2013.

An assessment of the proposal's compliance with the relevant rules of the Operative District Plan (ODP) has been completed by the Agent and submitted as part of the Application (refer to the updated version of Appendix 7 of the application). In summary, the proposal triggers consent under the rules outlined in the following table. I generally concur with this assessment except as identified below.

Table 6: Resource Consents Required under Operative District Plan

Rule #	Rule Name	Status of Activity	Comment
25.10	Type of Activity	Discretionary	The type of activities being proposed as part of this application includes the importation and disposal of managed fill (consisting of asbestos contaminated soil and material), deposit of overburden material associated with quarrying (extractive industry) and potential sales of overburden material.
25.16	Vehicle Movements	Discretionary	<p>The application states that the nature of the proposal is such that 24 additional vehicle movements per day are anticipated. This is in addition to the 466 vehicle movements per day generated by the quarry which are authorised in accordance with LUC0035/11.05.</p> <p>The application outlines that as these 466 movements are consented as per LUC0035/11.05 and fewer than 200 additional movements are proposed, the activity complies within rule 25.16.1 and consent is not required.</p> <p>I disagree with this assessment. As the scale of non-compliance with rule 25.16.1 is increased by the proposal, I consider that the activity triggers the need for a Discretionary Activity consent as per rule 25.16.2</p> <p>In addition to the above, the peer review undertaken Gray Matter considers that the proposal could generate around 60-70 additional vehicle movements per day, instead of the 24 outlined in the proposal. Therefore there is potential for the scale of non-compliance to be greater than that set out in the application.</p>
25.25	Earthworks	Discretionary	<p>The proposal exceeds the permitted standards for earthworks as the works will involve:</p> <ul style="list-style-type: none"> • cut and fill operations over 1000m³ within a site in a single calendar year • cut and fill operations over 1000m² • cut/batter faces greater than 3m in height being up to 10m in height. • changes to natural waterflows and established drainage paths, and • fill areas will not be revegetated within 12 months of commencement
25.27	Earthworks filling using imported fill	Discretionary	This proposal includes filling using imported managed fill and clean fill. The volume/capacity of each Fill Area varies between 576,600 – 800,000m ³ , and the

			combined total fill volume is estimated to be over 2 million cubic metres. The anticipated fill volume will exceed the permitted volume of 200m ³ and a depth of 1m.
25.43A	Indigenous Vegetation Clearance	Restricted Discretionary Activity	The proposed fill areas will result in the clearing and disturbance of indigenous vegetation for preparation and stabilisation purposes. This is not provided as one of the identified purposes in section (a) (i) to (viii) in rule 25.43A.1.

As outlined in the assessment above, the application is a Discretionary Activity under the Operative District Plan, being the highest status indicated by the above rules and Council's discretion is not restricted to any matters.

2.2 Proposed Waikato District Plan

On 17 January 2022 Council notified the Decisions on the Proposed Waikato District Plan. The period for appeals to the Environment Court has since closed. Section 86B(1) of the RMA outlines that a rule in a proposed plan has legal effect once a decision on submissions relating to a rule is made and publicly notified under clause 10(4) of Schedule 1. As this has occurred, all rules within the Proposed District Plan – Decision Version (PDP- DV) have legal effect.

An assessment of the proposal's compliance with the relevant rules of the PDP-DV has been completed by the Agent and submitted as part of the Application (refer to the updated version of Appendix 7 of the application). In summary, the proposal triggers consent under the rules outlined in the following table. I generally concur with this assessment except as identified below.

Table 7: Resource Consents Required under Proposed District Plan – Decisions Version

Rule	Status of Activity	Comment
GRUZ-R40 An extractive activity or waste management activity located within an Aggregate Extraction Area, Coal Mining Area or Extractive Resource Area	Restricted Discretionary	Fill Area 2 is located partially within the Aggregate Extraction Area
GRUZ-R41 A waste management facility located outside an Aggregate Extraction Area, Coal Mining Area or Extractive Resource Area	Discretionary	Fill Area 3 and 4 and part of Fill Area 2 are outside of the Aggregate Extraction Area, Coal Mining Area or Extractive Resource Area
GRUZ-R45 An extractive activity located outside an Aggregate Extraction Area, Coal Mining Area or Extractive Resource Area	Discretionary	The deposition of any overburden from the adjacent quarry falls within the definition of an extractive activity and may occur within Fill Areas 3 and 4, which are outside the Aggregate Extraction Area.
AINF-R8 Earthworks activities associated with	Restricted Discretionary	Earthworks are required for infrastructure such as the stormwater management. The volume and area of earthworks will be

infrastructure		<p>exceeded, and works are within 10m of watercourses within the gullies.</p> <p>Areas exposed may not be recontoured/replanted within 6 months of works commencing and the earthworks will divert overland flow paths.</p> <p>Erosion and sediment controls are proposed and will be implemented and maintained. The earthworks are not located within any Historic Heritage site, area/site of significance to Maaori, the dripline of an Notable Tree or SNA/landscape and natural character area.</p>
AINF-R9 Trimming, maintenance or removal of vegetation or trees associated with infrastructure	Restricted Discretionary	Existing indigenous vegetation will be removed to install infrastructure (such as the sediment retention ponds) and will exceed the standards in (a)(iii)
AINF-R10 Pipe and cable bridge structures for the conveyance of electricity, telecommunications, water, wastewater, stormwater and gas	Restricted Discretionary	Stormwater pipes will exceed the standards outlined in (a)
TRPT-R4 Traffic generation	Restricted Discretionary	<p>The application states that the proposal is such that 24 additional truck movements per day are anticipated. This is in addition to the 466 vehicle movements per day generated by the quarry which are authorised in accordance with LUC0035/11.05.</p> <p>The application outlines that as these 466 movements are consented as per LUC0035/11.05 and the additional movements are fewer than 200, the proposal complies within TRPT-R4.</p> <p>I disagree with this assessment. As the scale of non-compliance with rule TRPT-R4 is increased by the proposal, I consider that the activity triggers the need for a Restricted Discretionary Activity consent.</p> <p>In addition to the above, the peer review undertaken Gray Matter considers that the proposal could generate around 60-70 additional vehicle movements per day, instead of the 24 outlined in the proposal. Therefore there is potential for the scale of non-compliance to be greater than that set out in the application.</p>
WWS-R5 Pump stations for the conveyance of water, wastewater and	Restricted Discretionary	The pump and associated tanks required for storing and testing groundwater for Fill Area 3 may exceed 10m ² in area and 3m in height.

stormwater		
ECO-R3 Earthworks in a Significant Natural Area for purposes other than the maintenance of existing tracks, fences or drains.	Restricted Discretionary	Earthworks within the compensation area, and identified SNA, are proposed.
ECO-R11 Vegetation clearance outside a Significant Natural Area	Restricted Discretionary	Clearance of all vegetation within Fill Area's 2, 3 and 4 is proposed, and does not fall within the permitted standards
ECO-R15 Clearance of manuka or kanuka outside a Significant Natural Area	Restricted Discretionary	Clearance of all vegetation within Fill Area's 2, 3 and 4 includes manuka, and removal is not to maintain productive pasture or for domestic firewood purposes.
ECO-R16 Indigenous vegetation clearance outside a Significant Natural Area for any reason not specified in Standards ECO-R11 to ECO-R15.	Restricted Discretionary	Clearance of all vegetation within Fill Area's 2, 3 and 4 is proposed.
EW-R21 Earthworks – general	Restricted Discretionary	Earthworks proposed within Fill Area's 2 to 4 exceed the volume, area, depth and slope outlined in EW-R21. Earthworks are set back greater than 1.5m from all boundaries, and exposed areas will be stabilised on completion and re-grassed. Appropriate erosion and sediment control measures are proposed.
EW-R22 Earthworks – general	Restricted Discretionary	Given the volume of material to be imported to the site, the works proposed will exceed the volume, depth and slope outlined in EW-R22. Earthworks are set back greater than 1.5m from all boundaries, and exposed areas will be stabilised on completion and re-grassed. Appropriate erosion and sediment control measures are proposed. No works are proposed within a kauri root zone.

As outlined in the assessment above, the application is a Discretionary Activity under the Proposed District Plan – Decision Version, being the highest status indicated by the above rules and Council's discretion is not restricted to any matters.

2.3 National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 (NES)

Regulation 5 (4) of the Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 (NESCS) describes disturbing soil as an activity to which the NESCS applies where an activity that can be found on the Ministry for the Environment Hazardous Activities and Industries List (HAIL) has occurred.

Regulation 6 of the NESCS specifies that an applicant must establish if any HAIL activities have occurred on the subject site. The applicant can do this by adopting one of two methodologies:

1. Review of all relevant council records including dangerous goods files, property files, registers, databases, resource consent databases, records available from Regional Council;
2. Preliminary Site Investigation undertaken by a suitably qualified and experienced practitioner in accordance with the current Ministry for the Environment's Contaminated Land Management Guidelines No. 1 Reporting on Contaminated Sites in New Zealand.

The applicant has provided a combined Preliminary Site Investigation (PSI) and Detailed Site Investigation (DSI) Contaminated Site Management Plan (CSMP). Councils Contaminated Land Specialist (Mr Alan Parkes) has reviewed the application and has commented:

“Fill Area 3 is identified as containing a piece of land as described by regulation 5(7) and the NESCS therefore applies to the soil disturbance activity associated with the site development. A DSI was undertaken identifying elevations of some contaminants above background levels resulting in the proposal being a controlled activity under regulation 9. A Contaminated Site Management Plan has been submitted in respect of this.”

Therefore, a Controlled Activity consent is required with respect to the NESCS.

3.0 SECTION 95A ASSESSMENT FOR THE PURPOSE OF PUBLIC NOTIFICATION

A consent authority must follow the steps set out below in the order given to determine whether to publicly notify the application:

3.1 Step 1: Mandatory Public Notification – s95A(2) and (3)

	Criteria	Yes/No
(a)	Public Notification at Applicant's request - s95A(3)(a)	Yes
(b)	Public Notification is required under section 95C (s95A(3)(b))	No
(c)	Public Notification is required as the application is a joint application with an application under section 15AA of the Reserves Act 1977, to exchange recreation reserve land (s95A(3)(c))	No

The applicant has requested that the application be publicly notified. On this basis, further consideration of steps 2 to 4 (sections 94A(4) to (9)) are not required.

3.2 Conclusion on Public Notification

It is concluded under s95A of the RMA that the application shall be publicly notified.

4.0 SECTION 95B ASSESSMENT FOR THE PURPOSE OF IDENTIFYING PARTIES TO SERVE NOTICE PURSUANT TO REGULATION 10 OF THE RESOURCE MANAGEMENT (FORMS, FEES AND PROCEDURE) REGULATIONS 2003

If the consent authority determines that the application must be publicly notified, Regulation 10(2)(a) provides that the consent authority must serve notice of the application on every person who the consent authority decides is an affected person under section 95B of the RMA. The steps as outlined under section 95B are considered below.

4.1 Step 1: Certain Affected Groups and Affected Persons must be notified - s95B(2)-(4)

Criteria		Yes/No
(a)	Are there any affected protected customary rights groups – s95B(2)(a)	No
(b)	Is the activity on or adjacent to or may affect land that is the subject of a statutory acknowledgement made in accordance with an Act specified in Schedule 11 – s95B(3)(a)	No

4.2 Step 2: Limited Notification Precluded in Certain Circumstances – s95B(5)(6)

Step 2 is not considered applicable as the proposal is to be publicly notified at the applicant's request.

4.3 Step 3: Certain other persons must be notified – s95B(7)

The application is not a boundary activity or an activity prescribed under s360H(1)(b) of the RMA, therefore an assessment is now required under s95B(8) to determine whether a person is an affected person in accordance with section 95E.

4.3.1 Effects that may be disregarded - s95E(2)

Pursuant to section 95E(2)(a), the consent authority may disregard an adverse effect of the activity on persons if a rule or NES permits an activity with that effect. The proposed activity (a managed fill facility) is such that it requires resource consent in this location. The effects associated with the managed fill activity are also not typical of the rural environment and therefore it is my opinion that no “permitted baseline” exists for this proposal. Accordingly, the “permitted baseline” has not been applied to this proposal.

The activity status is Discretionary and therefore all potential effects can be considered and there are not relevant statutory acknowledgements for the site.

4.3.2 Written Approval – s95E(3)

The applicant has also provided a partial written approval from Mike O'Reilly and Sigrid Schmitt who own a number of properties to the north west of Fill Area 3 (properties 26, 27, 29, 30 and 36 in Figures 5, 6 and 7 below). The written approval is not complete in that the signed plans have not been provided.

4.3.3 Assessment of adversely affected persons under Section 95E

I consider that the only people who have the potential to be affected by the proposal are those people identified in Figures 5 to 8 and detailed in Table 8 below and Iwi and Hapū groups. I do not consider that any other people/parties are affected based on the existing environment and the distance to other properties.



Figure 5: Potentially Affected Parties - North



Figure 6: Potentially Affected Parties Hillside Heights Road

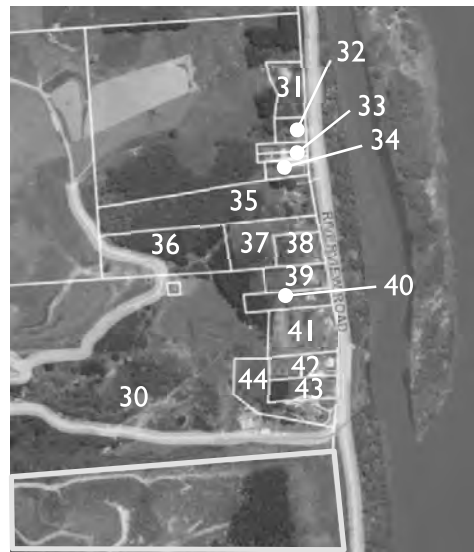


Figure 7: Potentially Affected Parties Riverview Road Area Site



Figure 8: Potentially Affected Parties - South

Table 8: Potentially Affected Parties

No.	Property Address	Legal Description	Owners
1	477 Rotowaro Road ROTOWARO	LOT 1 DPS 77295 LOT 1 DPS 81066	Sturæ Farms Limited
2	467 A Rotowaro Road ROTOWARO	LOT 1 DPS 28628 LOT 3 DPS 77295 LOT 2 DPS 81066 LOT 1 DPS 87380	Sharon D Wright & Kylie M Mulcahy & Foster & Milroy Trustee Company
3			
4	377 Rotowaro Road ROTOWARO	ALLOTS 323 324 PEPEPE PSH BLK XV RANGIRIRI SD	Campbell C J Jones & Frances A Jones
5			
6	331 A Rotowaro Road ROTOWARO	LOT 7 DPS 39646 BLK XV RANGIRIRI SD-SUBJ TO & INT IN ROW	
7	261 D Rotowaro Road ROTOWARO	LOT 6 DPS 39646 BLK XV RANGIRIRI SD - ROW	Claire Chambers & Jason Statham
8	261 B Rotowaro Road ROTOWARO	LOT 10 DPS 39646	Erin & Jaimeson & Robert Yorke
9	261 A Rotowaro Road ROTOWARO	LOT 2 DPS 22790 LOT 1 DPS 34202 BLK XV RANGIRIRI SD	Keith O O'Hara & Judith M O'Hara
10	90 Hillside Heights Road HUNTLY	LOT 1 DPS 33185	Paul C Vitasovich & Nicola M Vitasovich
11	82 Hillside Heights Road HUNTLY	LOT 1 DPS 90902	Catherine A Farmer & Kevin A Farmer
12	76 Hillside Heights Road HUNTLY		Grant C Oetiker
13	70 Hillside Heights Road HUNTLY		Hine A Tawhara & John R S Tawhara
14	60 Hillside Heights Road HUNTLY	LOT 2 DP 441147	Peter & Selma Subritzky
15	34 Hillside Heights Road HUNTLY	LOT 1 DP 441147	Turoa Pohatu & Kandy Subritzky- Pohatu
16	165 Rotowaro Road, ROTOWARO	Part Allot 377 Pepepe PSH	Michael P O'Reilly & Sigrid Schmitt & Rostrevor Trustees Five Limited
17	18 Hillside Heights Road, HUNTLY	LOT 1 DPS 17807	Nola D Morland & Rex M Morland
18	14 Hillside Heights Road, HUNTLY	LOT 3 DP 28446	Melinda A Ladonyi & Christopher D Ashton
19	8 Hillside Heights Road, HUNTLY	LOT 2 DP 28446	Stephanie K Griffin & James R Griffin

20	245 Rotowaro Road ROTOWARO	LOT 2 DPS 16339	Soudchay Phomsouvanh & Kitnaree Naksuk
21	241 Rotowaro Road ROTOWARO	LOT 1 DPS 20360	Karen L Allen & Lynette K Parker
22	239 Rotowaro Road ROTOWARO	LOT 2 DPS 20360	Kevin F & Robyn M Healey
23	4 Hillside Heights Road, HUNTLY	PT ALLOT 332 PEPEPE PSH SO 37114, PT LOT 1 DP 28446	Joanna R Beddis
24	219 B Rotowaro Road ROTOWARO	LOT 2 DPS 86636	Wayne R & Maree F Rutherford
25	219 Rotowaro Road ROTOWARO	LOT 1 DPS 86636	Dorothy C & William G Molloy
26	33 Hillside Heights Road, HUNTLY	LOT 23 DP 16730	Michael P O'Reilly & Sigrid Schmitt & Rostrevor Trustees Five Limited
27	185 Rotowaro Road ROTOWARO	LOT 24 DP 16730	
28	95A Hillside Heights Road, HUNTLY	LOT 1 DPS 71607	Kate A & Philip N Thomas
29	Riverview Road, HUNTLY	LOT 1 DP 305165 PT ALLOT 9 PEPEPE PSH BLK XV RANGIRIRI SD LOT 1 DP 305165	Michael P O'Reilly & Sigrid Schmitt & Rostrevor Trustees Five Limited, Her Majesty The Queen
30	Riverview Road, HUNTLY	LOT 8 DP 1278 LOT 1 DPS 72681	Michael P O'Reilly & Sigrid Schmitt & Rostrevor Trustees Five Limited
31	160 Riverview Road, HUNTLY	LOT 1 DPS 47699	O'Sullivan G Charles
32	162 Riverview Road, HUNTLY	PT ALLOT 9 PEPEPE PSH DP 3167	Helena D Johnston & Brendan F Martyn
33	164 Riverview Road, HUNTLY	LOT 1 DP 29683 LOT 1 DP 326483, LOT 2 DP 29683	Donald R & Shirley J McDonald
34	166 Riverview Road, HUNTLY	LOT 2 DP 326483	Melissa Sherrin McDonald
35	168 Riverview Road, HUNTLY	LOT 2 DPS 25418	Stuart David Neary
36	170 Riverview Road, HUNTLY	LOT 1 DPS 25418	Michael P O'Reilly & Sigrid Schmitt & Rostrevor Trustees Five Limited
37	176 Riverview Road, HUNTLY	LOT 1 DPS 6338	Lynne & Barry G Arnold
38	180 Riverview Road, HUNTLY	PT ALLOT 9 PEPEPE PSH DP 3167	Ernest D & Janet A Fleming
39	184 Riverview Road, HUNTLY	PT LOT 8 DP 1278	Kevin J & Colleen M Wickens
40	188 Riverview Road, HUNTLY	PT LOT 8 DP 1278 BLK XV RANGIRIRI S D	
41	192 Riverview Road, HUNTLY	PT LOT 8 DP 1278 BLK XV RANGIRIRI S D	John Charles Paynter
42	200 Riverview Road, HUNTLY	PT LOT 8 DP 1278 BLK XV RANGIRIRI S D	Lynn N & Ivan A Haumaha
43	204 Riverview Road, HUNTLY	LOT 2 DP 339708	Daniel George O'reilly

44	206 Riverview Road, HUNTLY	LOT I DP 339708, LOT I DPS 12785	Scutts Trustee Limited
45	343 Tregowth Lane HUNTLY	LOT I DP 520917	Freeway Design Limited
46	179B Tregowth Lane HUNTLY	LOT 2 DP 520917	Craig J Graham
47	368 Riverview Road, HUNTLY	PT ALLOT I PEPEPE PSH SO 376, PT LOT 12 DP 1278	Roselie E & Roselei E & John D Holland
48	368 Riverview Road, HUNTLY	PT SEC 4 BLK III NEWCASTLE	Roselie E & Roselei E & John D Holland
0	391 Huhu Road HUNTLY	ALLOT 534 PEPEPE PSH SO 53929, PT SEC 3 BLK III NEWCASTLE SD SO 26536	David Mark Ramsay
51	45 Huhu Road HUNTLY	ALLOT 362 PEPEPE PSH SO 42646, ALLOT 461 PEPEPE PSH SO 50434, ALLOT 472 PEPE	Loretta V & Warren J Tapp & Tapp Family Trustees Limited

Compensation Planting

The nature of the compensation planting (within Lot I DPS 75436) is such that the effects of this activity will be less than minor in relation to the owners and occupiers of adjoining sites. In particular the proposed compensation area (identified as SNA in the PDP-DV) is located approximately 70 m from the closest boundary and over 200 m from most neighbouring sites. It triggers the need for a consent due to the small volume of earthworks required for when holes are dug for planting. The effects of the compensation planting will be intermittent and temporary, with low levels of noise and traffic generation. On this basis, the effects to the owners and occupiers of the sites identified in figures 5 to 8 above will be less than minor. The effects of this activity will not be considered further in the specific assessments below.

Properties 1 - 8

These sites are located to the north and north west of Lot I DPS 75436 which is the site where the compensation planting is proposed. There is significant separation between these sites (over 1km) and the fill areas, and they are all accessed via either Rotowaro Road or Hillside Heights Road so it is not expected that they will experience any change in terms of vehicles associated with the activity. On the basis of the acoustic assessment and the subsequent peer review, changes in noise levels as a result of the fill activity will be negligible for these sites and will comply with the standards in the ODP and PDP-DV. These properties will not have a direct view of the fill areas and therefore the conclusion of the landscape and visual assessment and peer review is that the visual effects will be less than minor. Overall, the rural character and amenity values associated with these properties will be largely unchanged. The effects to the owners and occupiers of these sites is concluded as being less than minor.

Properties 9 – 13, 15, 16, 19, 21 – 28

These sites are located to the north of Lot I DPS 75436 (the compensation planting site) and north west of the fill areas. They are all accessed via either Rotowaro Road or Hillside Heights Road so it is not expected that they will experience any changes associated with vehicle movements resulting from the fill activity. The acoustic assessment and comments of the peer reviewer outlines that noise levels as a result of the fill activity will increase for some of these sites. These changes will likely be noticeable when there is still weather during summer nights when people have their windows open, but at a low level and in compliance with the standards in the ODP and PDP-DV. Thus the effects of noise will continue to be less than minor.

These properties will have a direct views of the fill areas and it is the opinion of the landscape and visual assessment peer reviewer that this will have a minor effect. Dust has the potential to be generated by earthworks, the movements of vehicles/machinery and the placement of fill. A number of controls (outlined in a Dust Management Plan) are identified to limit dust emissions beyond the site. Noting these factors and that the prevailing winds are primarily from the west, the effects of dust to the owners and occupiers of these properties will be less than minor. Rural character and amenity values are derived from people's appreciation of an area. There is a potential for the rural character and amenity effects to be minor when taking into consideration, the cumulative effects of the changes likely to occur, particularly in terms of changes in the noise environment and the visual outlook. Overall, on the basis that landscape and visual effects and amenity effects will be minor, the owners and occupiers of these sites are deemed to be affected parties.

Properties 14, 17, 18 and 20

These sites are located to the north of Lot 1 DPS 75436 (the compensation planting site) and north west of the fill areas. They are all accessed via Hillside Heights Road so it is not expected that they will experience any changes associated with vehicle movements resulting from the fill activity. The acoustic assessment and comments of the peer reviewer outlines that noise levels as a result of the fill activity will increase for some of these sites. These changes may be noticeable when there is still weather during summer nights when people have their windows open, but at a low level and in compliance with the standards in the ODP and PDP-DV. Thus the effects of noise will be less than minor.

As a result of the contour of the land between the subject site and these properties, they will not have a direct view of the fill, therefore the conclusion of the landscape and visual assessment and peer review is that the visual effects will be less than minor. As the prevailing winds are primarily from the west, the effects of dust to the owners and occupiers of these properties will be less than minor noting that these sites are over 800m from the subject site. Rural character and amenity values associated with these properties will be largely unchanged given the separation from the site and the lack of direct views. On this basis, the effects to the owners and occupiers of these sites will be less than minor.

Properties 29 and 30

These sites are located directly north of the fill areas and contains the O'Reilly Quarry and surrounds. They are accessed via Riverside Road, approximately 900m north of the entrance to the Gleeson Quarry. There will be an increase in the number of trucks that pass this property as a result of the proposal. The Traffic Impact Assessment predicts that that will be an additional 24 vehicle movements resulting from the proposal. However, the peer review undertaken Gray Matter considers that the proposed could generate around 60-70 additional vehicle movements per day. Despite this disagreement in numbers, the Gray Matter peer review considers that the proposal is unlikely to lead to unacceptable adverse safety and efficiency effects. With particular regard to Riverview Road, there is adequate capacity in the network and any off site effects are focused around the vehicle entrance. The acoustic assessment and comments of the peer reviewer outline that noise levels as a result of the fill activity will increase for these sites. These changes would likely be noticeable when there is still weather, but at a low level and in compliance with the standards in the ODP and PDP-DV.

These properties will have direct views of the fill areas and it is the opinion of the landscape and visual assessment peer reviewer that this will have a minor effect. These sites are located directly to the north and the north east of the fill area, meaning that should the proposed dust controls not be effective, there is the potential for these sites to be impacted by dust, particularly the southern properties in this cluster. While the nature of the use of this site is such that it is unlikely to be sensitive to dust effects, the proximity is such that there is potential that the effects of dust to be minor. In turn, the effects to rural character and amenity values

will also be minor noting the potential small increases in noise levels, dust, vehicle movements. On the basis of the above, the owners and occupiers of these sites are deemed to be affected parties.

Properties 31 to 44

These sites are located to the north east of the fill areas and are a cluster of residential and rural residential properties. All (except property 36) containing dwellings that face the Waikato River and are accessed via Riverside Road. The entrance to the Gleeson Quarry is located approximately 900m to the south of the southern most property (44 in figure 7). There will be an increase in the number of trucks that pass these sites. The Traffic Impact Assessment predicts that that will be an additional 24 vehicle movements resulting from the proposal. However, the peer review undertaken Gray Matter considers that the proposed could generate around 60-70 additional vehicle movements per day. Despite this disagreement, the Gray Matter peer review considers that the proposal is unlikely to lead to unacceptable adverse safety and efficiency effects. With particular regard to Riverview Road, there is adequate capacity in the network and any off site effects are focused around the vehicle entrance.

The acoustic assessment and the peer reviewer, outlines that noise levels as a result of the fill activity will increase for the southern most properties in this group. These changes would likely be noticeable when there is still weather, but at a low level and in compliance with the standards in the ODP and PDP-DV. These properties will not have a direct view of the fill areas and therefore the conclusion of the landscape and visual assessment and peer reviewer is that the visual effects will be less than minor.

These sites are located to the east and north east, meaning that should the proposed dust controls not be effective, there is the potential for these sites to be impacted by dust, particularly the southern properties in this cluster. While there is some vegetation screening, this may not shield these sites from dust from all of the fill areas. Therefore, there is potential that the effects of dust to the owners and occupiers of these properties will be minor. Noting these dust effects, the potential small increases in noise levels and vehicle movements there is also the potential for the adverse effects to rural character and amenity values for these properties to be minor. On this basis, the owners and occupiers of these sites are deemed to be affected parties.

Property 45

This site is located to the south east of the fill areas and is occupied by the Hillside Resort. There is significant separation between this site (over 2km) and the fill areas. It is located on the opposite side of the Waikato River and is accessed via Tregoweth Lane. As a result it will not experience any change in terms of vehicles, noise or dust. Given the elevated nature of this property will have a direct view of the fill areas and it is the opinion of the landscape and visual assessment peer reviewer that this will have a minor effect. On this basis, the owners and occupiers of this site is deemed to be an affected party.

Property 46

This site is located to the south east of the fill areas and is directly north of the Hillside Resort site. There is significant separation between this site (over 2km) and the fill areas. It is located on the opposite side of the Waikato River and is accessed via Tregoweth Lane. As a result it will not experience any change in terms of vehicles, noise or dust. While this site has elevated sections, it does not appear to have a direct view of the fill areas noting the existing trees on the subject site (to be retained). It has not been identified by the landscape and visual assessment peer reviewer as having a direct view and therefore these effects will be less than minor.

Properties 47 to 49

These sites are located to the south of Lot 1 DPS 75436 (the compensation planting site) and are over 500m from the fill areas. They are all accessed via either Riverview Road, noting that the fill activity is accessed via the quarry access. The vehicle entrance to property 47 (being the closest of these properties) is located over 600m to the south. There will be an increase in the number of trucks that pass these properties with approximately half of the additional vehicle movements passing these properties per day. The Traffic Impact Assessment predicts that that will be an additional 24 vehicle movements resulting from the proposal. However, the peer review undertaken Gray Matter considers that the proposed could generate around 60-70 additional vehicle movements per day. Despite this disagreement, the Gray Matter peer review considers that the proposal is unlikely to lead to unacceptable adverse safety and efficiency effects. With particular regard to Riverview Road, there is adequate capacity in the network and any off site effects are focused around the vehicle entrance.

On the basis of the acoustic assessment and the comments of the peer review, changes in noise levels as a result of the fill activity will be negligible for these sites and will comply with the standards in the ODP and PDP-DV. These properties will not have a direct view of the fill areas and therefore the visual effects will be less than minor. Given that these sites are located to the south, the distance to the sensitive receptors (the nearest dwelling is over 1km away from the fill area and 600m from the site entrance) on these sites, existing vegetation and the contour of the land, the potential dust effects will be less than minor. Rural character and amenity values associated with these properties will be largely unchanged. On this basis, the effects to the owners and occupiers of these sites will be less than minor.

Properties 50 and 51

These sites are located to the south of Lot 1 DPS 75436 (the compensation planting site) and are over 1.5km from the fill areas. They are all accessed via either Huhu Road so are not expected to experience any change in terms of vehicles associated with the activity. On the basis of the acoustic assessment and the comments of the peer reviewer, changes in noise levels as a result of the fill activity will be negligible for these sites and will comply with the standards in the ODP and PDP-DV. These properties will not have a direct view of the fill areas and therefore the visual effects will be less than minor and rural character and amenity values associated with these properties will be largely unchanged. The effects to the owners and occupiers of these sites will be less than minor.

Iwi and Hapuu

Waikato Tainui are the recognised rohe (tribal area) and have manawhakahaere (authority) over their lands and the Waikato River. The hapū in Huntly include Ngaati Kuarangi, Ngaati Mahuta, Ngaati Whaawhaakia and Ngaati Tai Hapuu. The local Marae include Hukanui a Muri Marae, Waahi Paa, Te Ohaaki, Kaitumutumu, Te Kauri, Taupiri and Matahuru. These hapū are represented by the iwi organisation Waahi Whaanui Trust.

The applicant has undertaken consultation with iwi and hapū and a Cultural Impact Assessment was prepared by Norm Hill on behalf of the Waahi Whaanui Trust dated 12 September 2020 which was initially supported by Waikato Tainui. However, in a letter dated 31 August 2021, the Waahi Whaanui Trust outlined that they had resolved to oppose the application, specifically with regard to Fill Area 3. The letter notes concerns with the discharging of contaminants with the potential to impact on the health and wellbeing of the Waikato River.

Given the nature of the activity, its proximity to the Waikato River (its importance acknowledged by Te Ture Whaimana o Te Awa o Waikato) and the specific opposition Waahi Whaanui Trust, it is my opinion that the proposal has the potential to result in adverse cultural effects. On this basis, Waikato Tainui and Waahi Whaanui Trust (and the following marae; Hukanui a Muri Marae, Waahi Paa, Kaitumutumu Marae, Te Kauri Marae, Te Ohaaki Marae are deemed to be affected parties.

4.4 Step 4: Limited Notification in Special Circumstances - s95B(10)

The consent authority must notify an application, to any other persons not already determined to be eligible for limited notification, if it considers that special circumstances exist in relation to the application.

Special circumstances have been defined as circumstances that are exceptional, abnormal or unusual but may be less than extraordinary or unique. Special circumstances provide a mechanism for notification of an application which may otherwise appear to be routine or uncontentious or minor in its effects.

In this instance, the proposal is considered not to have exceptional, abnormal or unusual circumstances warranting limited notification.

Special circumstances may also arise if notification will result in the provision of additional information. The High Court has stated that an application will not be regarded as unusual if the consent authority does not require additional information which notification may provide (*Murray v Whakatane District Council* (1997) 3 ELR NZ 308). The Courts have said this may be because the principles to be applied in the decision are clear and non-contentious or the adverse effects are minor. Where there are indications that the case is out of the ordinary because it doesn't fall within that general policy, it will be necessary to consider notification on the basis of special circumstances.

Direct notification to parties beyond those identified in section 4.3.3 above is not considered necessary to identify additional information. This is because the application and peer reviews contain enough information to determine the effects that predominantly make up the concerns that have been expressed.

The High Court in *Urban Auckland v Auckland Council* [2015] NZHC 1382 considered whether concerns expressed by interested parties constitute special circumstances. The High Court stated:

[137] Concern on the part of an interested party could not of itself be said to give rise to special circumstances because if that was so every application would have to be advertised where there was any concern expressed by the people claiming to be affected.

And again at [140]:

[140] I also acknowledge ... in reliance on the observation of the Court of Appeal in Bayley that, just because concern is expressed by people claiming to be affected, that does not of itself make for special circumstances ...

Therefore, while I am aware that concerns of members of the wider community have been raised with Council directly, to the Huntly Community Board and Elected Council Members, I do not consider that further information will be gained by notifying the application to them. It is noted that any person can make a submission as the application is to be publicly notified.

4.5 Other requirements for serving notice under Regulation 10

In addition to the above, Regulation 10(2)(b) – (i) states that the consent authority must serve notice on the parties outlined in the table below.

Table 9: Potentially Affected Parties as per Regulation 10(2)(b) – (i)

	Person/ authority described in regulation 10	Notice to be served	Comment
(b)	every person, other than the applicant, who the consent authority knows is an owner or occupier of land to which the application or review relates.	No	The applicant is “Gleeson Managed Fill Ltd” and the site is owned by “Gleeson Quarries Huntly Limited”. It is understood that both are a division of the Gleeson & Cox Group. There are no other known occupiers of the site.
(c)	the regional council or territorial authority for the region or district to which the application or review relates.	No	It is noted that a number of consents have been sought from WRC in relation to this application and the application is to be jointly heard.
(d)	other iwi authorities, local authorities, persons with a relevant statutory acknowledgement, persons, or bodies that the consent authority considers should have notice of the application or review.	No	There are no other authorities beyond those considered above that should have notice of the application.
(e)	the Minister of Conservation, if the application or review relates to an activity in a coastal marine area or on land that adjoins a coastal marine area.	No	The site is well separated from the coastal marine area.
(f)	the Minister of Fisheries, the Minister of Conservation, and the relevant Fish and Game Council, if an application relates to fish farming (as defined in the Fisheries Act 1996) other than in the coastal marine area.	No	The application does not relate to fish farming.
(g)	Heritage New Zealand Pouhere Taonga, if the application or review— (i) relates to land that is subject to a heritage order or a requirement for a heritage order or that is otherwise identified in the plan or proposed plan as having heritage value; or (ii) affects any historic place, historic area, wāhi tūpuna, wahi tapu, or wahi tapu area entered on the New Zealand Heritage List/Rārangi Kōrero under the Heritage New Zealand Pouhere Taonga Act 2014.	No	The site is not subject to a heritage order and will not affect any historic place, historic area, wāhi tūpuna, wahi tapu, or wahi tapu area entered on the New Zealand Heritage List
(h)	a protected customary rights group that, in the opinion of the consent authority, may be adversely affected by the grant of a resource consent	No	No known customary rights are impacted by the proposal

	or the review of consent conditions.		
(ha)	a customary marine title group that, in the opinion of the consent authority, may be adversely affected by the grant of a resource consent for an accommodated activity.	No	The site is well separated from the coastal marine area.
(i)	Transpower New Zealand, if the application or review may affect the national grid.	Yes	High Voltage Power Lines traverse the site, running parallel to Riverview Road and in relatively close proximity to Fill Area 4. On this basis, and noting that the works include earthworks, Transpower New Zealand are considered to be potentially affected by the proposal.

5.0 SECTION 95 NOTIFICATION RECOMMENDATION AND DECISION UNDER DELEGATED AUTHORITY

Pursuant to section 95 A & B the application LUC0488/22 for a Discretionary Activity under the Operative District Plan shall proceed on a NOTIFIED basis for the reasons discussed above. The owners and occupiers of the properties outlined in table 10 and the groups in table 11 below shall be directly notified as well as Transpower New Zealand:

Table 10: Affected Parties for Direct Notification

Property Address	Legal Description
261 A Rotowaro Road ROTOWARO	LOT 2 DPS 22790 LOT 1 DPS 34202 BLK XV RANGIRIRI SD
90 Hillside Heights Road HUNTLY	LOT 1 DPS 33185
82 Hillside Heights Road HUNTLY	LOT 1 DPS 90902
76 Hillside Heights Road HUNTLY	
70 Hillside Heights Road HUNTLY	
34 Hillside Heights Road HUNTLY	LOT 1 DP 441147
165 Rotowaro Road ROTOWARO	Part Allot 377 Pepepe PSH
8 Hillside Heights Road, HUNTLY	LOT 2 DP 28446
241 Rotowaro Road ROTOWARO	LOT 1 DPS 20360
239 Rotowaro Road ROTOWARO	LOT 2 DPS 20360
4 Hillside Heights Road, HUNTLY	PT ALLOT 332 PEPEPE PSH SO 37114, PT LOT 1 DP 28446
219 B Rotowaro Road ROTOWARO	LOT 2 DPS 86636
219 Rotowaro Road ROTOWARO	LOT 1 DPS 86636
33 Hillside Heights Road, HUNTLY	LOT 23 DP 16730
185 Rotowaro Road ROTOWARO	LOT 24 DP 16730
95A Hillside Heights Road, HUNTLY	LOT 1 DPS 71607
Riverview Road, HUNTLY	LOT 1 DP 305165 PT ALLOT 9 PEPEPE PSH BLK XV RANGIRIRI SD LOT 1 DP 305165
Riverview Road, HUNTLY	LOT 8 DP 1278 LOT 1 DPS 72681
160 Riverview Road, HUNTLY	LOT 1 DPS 47699
162 Riverview Road, HUNTLY	PT ALLOT 9 PEPEPE PSH DP 3167
164 Riverview Road, HUNTLY	LOT 1 DP 29683 LOT 1 DP 326483, LOT 2 DP 29683
166 Riverview Road, HUNTLY	LOT 2 DP 326483
168 Riverview Road, HUNTLY	LOT 2 DPS 25418
170 Riverview Road, HUNTLY	LOT 1 DPS 25418
176 Riverview Road, HUNTLY	LOT 1 DPS 6338
180 Riverview Road, HUNTLY	PT ALLOT 9 PEPEPE PSH DP 3167
184 Riverview Road, HUNTLY	PT LOT 8 DP 1278
188 Riverview Road, HUNTLY	PT LOT 8 DP 1278 BLK XV RANGIRIRI S D
192 Riverview Road, HUNTLY	PT LOT 8 DP 1278 BLK XV RANGIRIRI S D
200 Riverview Road, HUNTLY	PT LOT 8 DP 1278 BLK XV RANGIRIRI S D
204 Riverview Road, HUNTLY	LOT 2 DP 339708
206 Riverview Road, HUNTLY	LOT 1 DP 339708, LOT 1 DPS 12785
343 Tregowth Lane HUNTLY	LOT 1 DP 520917

Table 11: Iwi, Hapuu and Marae for Notification

Iwi and Hapuu
Waikato Tainui
Waahi Whaanui Trust
Hukanui a Muri Marae
Waahi Paa
Kaitumutumu Marae
Te Kauri Marae
Te Ohaaki Marae

Reporting Planner:



Julia Masters
Consultant Planner
Dated: 13 July 2022

Peer Reviewed By:



Lance Feaver
Consultant Planner
Dated: 13 July 2022

Approved By:



Consents Team Leader
Dated: 15 July 2022

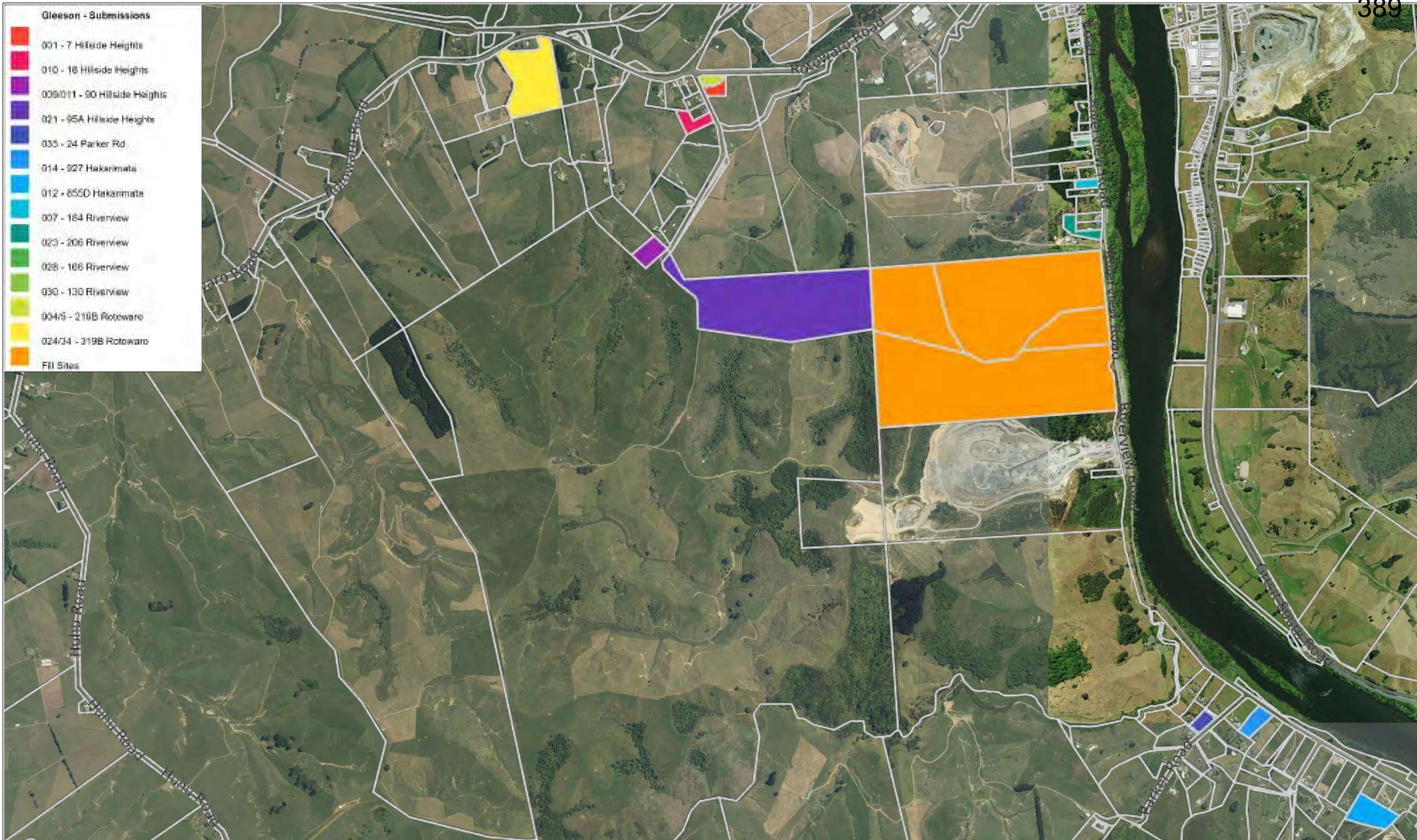
WAIKATO DISTRICT COUNCIL

S42A Report


Appendix C

Summary of submissions received and submitter locality plan

- Gleeson - Submissions
- 001 - 7 Hillside Heights
- 010 - 16 Hillside Heights
- 009/011 - 90 Hillside Heights
- 021 - 95A Hillside Heights
- 035 - 24 Parker Rd.
- 014 - 927 Hakanimata
- 012 - 655D Hakanimata
- 007 - 184 Riverview
- 023 - 206 Riverview
- 026 - 166 Riverview
- 030 - 130 Riverview
- 004/5 - 210B Rotowaro
- 024/34 - 319B Rotowaro
- Fill Sites



Map Prepared



Gleeson

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SUMMARY OF SUBMISSIONS

Name	Address	Sub*	Support/ Oppose	To Be Heard?	Reasons	Approve/ Decline	Conditions/Amendments
Dorothy Claire Molloy	7 Hillside Heights Rd, Huntly	001 Pages 1-2	Oppose	No	Contamination of water <ul style="list-style-type: none"> concerned that pollutants will enter Lake Puketirini and that PH levels will be affected 	Decline	
Anthony Ernest Perkins	125 Kimiha Rd, Huntly	002 Pages 3-4	Oppose	Yes	Transport effects <ul style="list-style-type: none"> hours of truck movements too early for town boundaries increase in traffic from trucks will affect quality of life damage to road truck size, increase to 28 tons 20% of trucks to deliver fill only Contamination of water <ul style="list-style-type: none"> run-off will end up in Lake Puketirini and Waikato River Contaminants in fill <ul style="list-style-type: none"> little to no limits on toxic nature of contents infilling gullies with potentially toxic waste is not protecting the environment as stated in Long Term Plan Community <ul style="list-style-type: none"> not in Huntly's best interest past compliance issues 	Decline	Limit trucks coming to site
Denise Phyllis Lamb	60 Riverside Way, Huntly	003 Pages 5-6	Oppose	Yes	Contamination of water <ul style="list-style-type: none"> proximity to Lake Puketirini and Waikato River potential leaching into Lake Puketirini Infrastructure <ul style="list-style-type: none"> the road is in a bad state 	Decline	Footpath needed for pedestrians and cyclists

Name	Address	Sub*	Support/ Oppose	To Be Heard?	Reasons	Approve/ Decline	Conditions/Amendments
					<ul style="list-style-type: none"> walkway needs to be upgraded for safety of pedestrians and cyclists Ecological effects <ul style="list-style-type: none"> Impact to birds and fish Noise Dust Odour Monitoring and compliance <ul style="list-style-type: none"> Concern over monitoring to ensure the environment is not being damaged or contaminated by the three levels of waste 		
Wayne Robert Rutherford	219B Rotowaro Rd, Huntly	004 Pages 7-12	Oppose	Yes	Contamination of water <ul style="list-style-type: none"> concerned about run off into Lake Puketirini long term effects of contamination on wildlife, and the state of the lake concerned that contaminants might cause future health problems i.e. birth defects 	Decline	
Maree Frances Rutherford	219B Rotowaro Rd, Huntly	005 Pages 13-20	Oppose	Yes	Visual/Landscape <ul style="list-style-type: none"> the view from the property is currently of farmland but will become a view of a dump site Air/Dust <ul style="list-style-type: none"> contaminants to air Odour Contaminants in fill <ul style="list-style-type: none"> asbestos, acid sulphate soils, and marine sediment are a concern. Contamination of water <ul style="list-style-type: none"> concern for the river and lakes nearby seepage and leakage from the activity will have a direct impact in this property 	Decline	

Name	Address	Sub*	Support/ Oppose	To Be Heard?	Reasons	Approve/ Decline	Conditions/Amendments
					<ul style="list-style-type: none"> concerned that assumed run off will affect the animals at their property and the food that they grow. 		
DOC - Penny Nelson	18/32 Manners Street, Wellington 6011	006 Pages 21-25	Oppose	Yes	<p>Ecological Effects</p> <ul style="list-style-type: none"> the site is likely a habitat for lizard and bird species including threatened species. freshwater fish such as shortfin eels and koura are identified in the vicinity, as well as at risk and threatened species such as short fin eels, inanga, torrent fish, giant kokopu, shortjaw kokopu, and lamprey. the site is used by nationally critical long tailed bats. the fill could cause changes to hydrology, loss of habitat and loss of gully systems, wetlands and streams (plus associated aquatic values Ecological Impact Assessment isn't adequate enough to represent the ecological impacts that this proposal will have Conditions and management plans area unconfirmed 35 years for the consent is unreasonable due to cumulative effects and changes in legislation 	Approved if conservation values can be protected. Otherwise decline	<p>Conditions:</p> <ul style="list-style-type: none"> activity and management clearly described Management plans are effective (further detailed provided) adequate monitoring appropriate duration
Kevin Wickens	184 Riverview Rd, Huntly	007 Pages 26-30	Oppose	Yes	<p>Transport effects</p> <ul style="list-style-type: none"> speed of trucks going past their gate vibration and noise from trucks damage to the road which is already visible health effects from trucks <p>Air/Dust</p> <ul style="list-style-type: none"> dust trail left from trucks transporting contaminated product through residential area <p>Noise/Vibration</p>	Not stated	

Name	Address	Sub*	Support/ Oppose	To Be Heard?	Reasons	Approve/ Decline	Conditions/Amendments
Garry & Audrey Cox	96 Riverview Rd, Huntly	008 Pages 31-32	Oppose	No	<p>Noise/Vibration</p> <ul style="list-style-type: none"> house shakes from trucks <p>Property will be devalued</p> <p>Stormwater</p> <ul style="list-style-type: none"> Pollution of stormwater from contaminants <p>Contamination of water</p> <ul style="list-style-type: none"> Need for lining to prevent leaking into Waikato River and Lake Puketirini <p>Air/Dust</p> <ul style="list-style-type: none"> Trucks need to be covered, checks of wheel wash <p>Monitoring and compliance</p> <ul style="list-style-type: none"> Concerned about breaches Need a bond for non-compliance 	Decline	Limit trucks coming to site
Paul Vitasovich	90 Hillside Heights Rd	009 Pages 33-38	Oppose	Yes	<p>Land Stability</p> <ul style="list-style-type: none"> FA3 is location of tailings from mining. Inadequate compaction. Should not be disturbed. Further investigation needed, tailings are 50m deep. <p>Contamination of water</p> <ul style="list-style-type: none"> Concern that contaminants could be transported to Waikato River concern about contaminants and silt running into Lake Puketirini concerned about the health of Lake Puketirini concerned about the health of the nearby stream concerned about the nearby waterways' vulnerability to an event such as a land slip at the site FA2 will discharge into the creek that feeds Lake Puketirini, so again there is concern for the health of nearby waterways concern about silt entering water bodies 	Decline	

Name	Address	Sub*	Support/ Oppose	To Be Heard?	Reasons	Approve/ Decline	Conditions/Amendments
					<p>Waikato River Vision</p> <ul style="list-style-type: none"> • Inconsistent with vision and strategy for the river • concern about the effect that the contaminants from the fill could have in relation to the nearby water treatment plant <p>Recreation</p> <ul style="list-style-type: none"> • concern about the effect that will be had on the recreational amenity of Lake Puketirini <p>Erosion and Sediment Effects</p> <ul style="list-style-type: none"> • past erosion/landslip events cause concern for the future • due to the site being where previous mine tailings are located, this causes concern for the submitter due to the instability of the ground, especially is its disturbed • size of SRP not adequate • the sediment retention ponds should make use of both synthetic and clay linings <p>Natural hazards</p> <ul style="list-style-type: none"> • Impact storms or earthquakes on the activity • increased frequency of high rainfall events due to climate change 		
Nola Dawn Moland	18 Hillside Heights, Huntly	010 Pages 39-41	Oppose	No	<p>Community</p> <p>No benefit to community</p> <p>Contamination of water</p> <ul style="list-style-type: none"> • Proximity to lake, river and streams <p>Ecological effects</p> <ul style="list-style-type: none"> • Displacement of flora and fauna <p>Dust</p> <p>Odour</p> <p>Noise</p>	Decline	

Name	Address	Sub*	Support/ Oppose	To Be Heard?	Reasons	Approve/ Decline	Conditions/Amendments
					Transport effects		
Nicola Vitasovich	90 Hillside Heights Rd	011 Pages 42-44	Oppose	Yes	Ecological effects <ul style="list-style-type: none"> Concerned about the effects of the proposal on wildlife such as fish, lizards, kokopu, long tailed bats, birds, as well as plants Contamination of water <ul style="list-style-type: none"> effects on waterways in the area of the proposal site and the health of these Recreation Community <ul style="list-style-type: none"> No benefit to community 	Decline	
Bryce & Carla Mounsey	855D Hakarimata Rd, Huntly	012 Pages 45-48	Oppose	Yes	Dust/Air <ul style="list-style-type: none"> dust trail that exceeds 1.5km either direction of the quarry on the road dust cloud sometimes up to 2km down the road dust is present in all weather conditions dust goes over and into the river submitter and other immediate residents consider the effects to be more than minor Transport effects <ul style="list-style-type: none"> the existing volume of trucks has had a negative impact on the road so having more trucks will have more of an impact concern about trucks not adhering to the speed limit congestion caused by trucks being slow when leaving site, from sweeper trucks clearing the dirt from the quarry off the road and additional trucks from fill activity 	Decline	Limit trucks coming to site

Name	Address	Sub*	Support/ Oppose	To Be Heard?	Reasons	Approve/ Decline	Conditions/Amendments
					<ul style="list-style-type: none"> • trucks from the quarry being a danger on the road by doing things such as failing to give way, causing lack of visibility, pulling out in front of other vehicles. • proposal will have a significant impact on the safe and efficient operation of the local road network • truck wash not working properly • road is in poor condition, will become worse Contamination of water <ul style="list-style-type: none"> • Contaminants will find way to Lake Puketirini and Waikato River Do not want Huntly to be dumping ground Health and safety effects for residents		
Colleen Earby	58 Kimihia Rd, Huntly	013 Pages 49-54	Oppose	Yes	Noise/Vibration <ul style="list-style-type: none"> • Increase in noise from the trucks, and houses shaking due to them as well Unable to sell home/devaluing of property Air/Dust <ul style="list-style-type: none"> • air pollution • dust and air pollution from trucks • covers on trucks due to nature of fill material Transport effects <ul style="list-style-type: none"> • Increase in heavy vehicles • Damage to road and payment to repair • Speed of trucks Monitoring and compliance <ul style="list-style-type: none"> • Frequency and nature of monitoring • Monitoring outcomes to be public Impacts of Climate Change Ecology <ul style="list-style-type: none"> • Wilding pines 	Decline	- Monitoring to be monthly and outcomes to be public - Limit trucks coming to site

Name	Address	Sub*	Support/ Oppose	To Be Heard?	Reasons	Approve/ Decline	Conditions/Amendments
					Contaminants in fill <ul style="list-style-type: none"> • Concerns about leaching of toxic substances into the soil Contamination of water <ul style="list-style-type: none"> • Concerns about the water table • Concerns about the safety of the river in extreme weather events • Concerns about the water quality in Lakes Puketirini and Waahi • Effects to Waikato River Health Effects <ul style="list-style-type: none"> • concerns that the materials being transported to the fill will have an impact on residents' health • proposed pine trees being planted in the future effects health e.g. asthma and hay fever 		
Kathie Shepard	927 Hakarimata Rd, Huntly	014 Pages 55-65	Oppose	Yes if others similar	Transport effects <ul style="list-style-type: none"> • Hours of truck movements not appropriate Contaminants in fill <ul style="list-style-type: none"> • Nature of fill material • Fill coming from outside of Waikato Contamination of water <ul style="list-style-type: none"> • Earthworks and fill will change natural waterflow • Adverse effects to Lake Puketirini • Contamination of waterways including sediment • Effectiveness of sediment ponds Visual/Landscape <ul style="list-style-type: none"> • Volume of fill will change landscape Ecological effects <ul style="list-style-type: none"> • Clearance of indigenous vegetation • Loss of bat habitat and other fauna 	Decline	Limit trucks coming to site

Name	Address	Sub*	Support/ Oppose	To Be Heard?	Reasons	Approve/ Decline	Conditions/Amendments
					Community <ul style="list-style-type: none"> No additional jobs created No economic benefit to community Recreation <ul style="list-style-type: none"> Risk to us of lake for swimming and water activities Transport effects <ul style="list-style-type: none"> trucks cleaning dust deposited on the road creates congestion and is a danger on the 100km road Monitoring and Compliance <ul style="list-style-type: none"> Risk that conditions won't be complied with Air/Dust <ul style="list-style-type: none"> Increase in dust 		
Jessica Rix	27 Hakanoa St, Huntly	015 Pages 66-70	Oppose	Yes	Air/Dust <ul style="list-style-type: none"> existing dust effects are not acceptable Contamination of water <ul style="list-style-type: none"> Lake Puketirini has been invested in and is a useful amenity that we don't want to become degraded due to the clean fill Transport effects <ul style="list-style-type: none"> Weight of trucks will double Question need for trucks over 12 hours and on Saturday Concerns about Tainui bridge RUCs are likely not enough to cover the cost of repairs that need to be done due to damage from trucks Doesn't trust Gleeson because of previous breaches and also disregard for the environment and rules	Decline	<ul style="list-style-type: none"> No timber No truck movements on Saturday Fill only from Waikato Only deposit into fill area Winter closure Remove unacceptable material within 48hours No fill to FA2 No subcontractors All asbestos to be wrapped No additional truck movements Bond of \$1mill

Name	Address	Sub*	Support/ Oppose	To Be Heard?	Reasons	Approve/ Decline	Conditions/Amendments
Leanne Ralph & Andrew Parkin	2 Perry Lane, Huntly	016 Pages 71-75	Oppose	Yes	Recreation <ul style="list-style-type: none"> • Lake Puketirini is important asset, used for recreation Monitoring and Compliance <ul style="list-style-type: none"> • Regular independent monitoring required • Need a bond Ecology <ul style="list-style-type: none"> • Wetland drained • Dispersed Herons Contamination of water <ul style="list-style-type: none"> • Run off to Lake Puketirini and concerns with the impact 	Decline	Limit trucks coming to site
Gaylene Aroha Himona	26 Hakanoa St, Huntly	017 Pages 76-80	Oppose	Yes	Transport effects <ul style="list-style-type: none"> • Poor quality of road is due to trucks, questions plan for mitigation • Repairs to Tainui bridge • Speed of trucks • Safety for pedestrians, cyclists • Risk to children in front yard from stone • Past near misses with trucks 	Decline	<ul style="list-style-type: none"> • Reduce hours for trucks visiting the site • Reduce number of trucks • Road quality (being responsibility of Councils and applicant)
Emily Joy Thomas	42B Mahuta Station Dr,	018 Pages 81-82	Oppose	Yes	Community <ul style="list-style-type: none"> • Lack of consultation and therefore trust Contamination of water <ul style="list-style-type: none"> • Effects to Lake Puketirini 	Decline	
Hine Lavinia & Donald Carmichael	45 Rotowaro Rd, Huntly	019 Pages 83-95	Oppose	Yes if others similar	Cultural <ul style="list-style-type: none"> • Lack of consultation with mana whenua • Inconsistent with Waikato Tainui Environment Plan (Chap 6) Inconsistent with Part 2 of RMA Transport effects <ul style="list-style-type: none"> • Increase in traffic 	Decline	

Name	Address	Sub*	Support/ Oppose	To Be Heard?	Reasons	Approve/ Decline	Conditions/Amendments
David Whyte - on behalf of Huntly Community Board	38 Ohinewai North Rd, Huntly	020 Pages 96-162	Oppose	Yes if others similar	<p>HDB supports other developments (e.g. Smart Build)</p> <p>Monitoring and Compliance</p> <ul style="list-style-type: none"> Concerns that the current monitoring is not adequate in terms of frequency and quality Difficulties contacting Council to report concerns/non-compliances and therefore keeping a record Past non-compliances and behaviour (diverting watercourse, coal storage, possible dumping, traffic management, stormwater management practices, staff behaviour) lead to lack of trust <p>Consultation</p> <ul style="list-style-type: none"> Consultation not adequate Questions were not answered at HCB meeting in March 2020 and did not follow up with community liaison group <p>Air/Dust</p> <ul style="list-style-type: none"> Current operation generates dust Riverview area most impacted by dust Dust is from quarry and material tracked on to roads Dust has coated road markers causing safety issue Plumes of dust come from trucks Dust from quarry has increased, potentially due to increase in exposed areas, cleared ridgelines and ineffective dust suppression techniques PDP wind analysis does not take local topography or elevation into account FA2 is exposed location Health impacts of dust to locals including risks from contaminants such as asbestos, erionite and tremolite 	Decline	<ul style="list-style-type: none"> Staff changes at WDC More proactive inspections on quarterly basis No warning before inspections Promotion of how to report issues Inspection information made public Annual presentation on monitoring to HCB and tangata whenua New road to take trucks away from residential roads Spraying dump site to suppress dust Washing of trucks before leaving site, not just wheel wash Spraying road to suppress dust Sweeping roadside and gutters Clean signage Monitoring of dust volume and particulate size at range of sites No asbestos and asbestos like material

Name	Address	Sub*	Support/ Oppose	To Be Heard?	Reasons	Approve/ Decline	Conditions/Amendments
					<ul style="list-style-type: none"> • Potential for increase in dust from fill as more bare earth, more movement and range of sources • Mitigation not adequate <p>Vibration</p> <ul style="list-style-type: none"> • Inadequate assessment of vibration effects • Impacts of vibration on quality of life including sleep • Poor quality roads lead to increase in vibration • Increase in trucks will increase vibration • Trucks arriving with full load will increase vibration <p>Contamination of water</p> <ul style="list-style-type: none"> • Site location likely to received high rainfall and rainfall (EAP) not accurately modelled • Long term impacts of leachate from contaminants in fill to waterways • Lake Puketirini has a small outlet and low water turn over. No assessment of existing heavy metal/contaminant levels • Need to consult with Waikato River Authority <p>Contaminants in fill</p> <ul style="list-style-type: none"> • Number of heavy metals and petrochemicals to be accepted • Unknown potential for interaction between contaminants • Mobility of petrochemicals in particular benzene <p>Transport effects</p> <ul style="list-style-type: none"> • Traffic will not be split 50/50 north and south. Current traffic is primarily from north. Therefore TIA is invalid • Dangerous to walk or cycle along Riverview Road <p>Community</p> <ul style="list-style-type: none"> • Few economic benefits to Huntly 		<ul style="list-style-type: none"> • If asbestos and erionite allowed, monitor for traces at boundary and beyond • Measure erionite levels in fill • Measure tremolite in streams • Bio-monitoring of dust • Cover trucks • Reduce speed of trucks to 50km/h • Limit hours of operation • Site specific EAP records • 50+ year leachate monitoring • Removal of FA2 • Install webcam to allow public to review • Clean fill only or if not possible, limits on heavy metals and petrochemicals • Contents of fill arriving at site each day to be presented online • New bridge • Build a footpath • Clean fill only or at least those creating odour

Name	Address	Sub*	Support/ Oppose	To Be Heard?	Reasons	Approve/ Decline	Conditions/Amendments
					<ul style="list-style-type: none"> Contractors who service the site are not local Most employees do not live in Huntly No significant increase in job numbers from fill activity <p>Odour</p> <ul style="list-style-type: none"> No odour assessment Odour can adversely affect quality of life <p>Noise</p> <ul style="list-style-type: none"> Error in acoustic assessment (note now fixed) Contour maps in acoustic report suggest activity should not start until 7am District plan standards are not met Home closest to operation not mentioned in report Lack of verification of noise modelling <p>Geotechnical</p> <ul style="list-style-type: none"> Instability concerns for FA3 (former overburden area) Assessment does not include desktop analysis or input from locals who were at site <p>Assessment based on insufficient number of bore holes and not deep enough. Should consider whole overburden area</p>		<ul style="list-style-type: none"> Works to start at 7am and cease at 7pm Further detailed Geotech testing for FA3
Daisy Kate Thomas	95A Hillside Heights Rd, Huntly	021 Pages 163-164	Oppose	Yes	<p>General adverse effects to environment</p> <p>Community</p> <ul style="list-style-type: none"> Lack of consultation 	Decline	
Tiffany Whyte	PO Box 234 Huntly	022 Pages 165-176	Oppose	Yes	<p>Transport effects</p> <ul style="list-style-type: none"> Current activity is causing damage and need for closures of Tainui bridge. Damage also to roundabout connecting Tainui bridge to Huntly West, Great South Road and Tainui Bridge Road 	Decline	<ul style="list-style-type: none"> Limit trucks coming to site Applicant should pay for repairs or build their own bridge

Name	Address	Sub*	Support/ Oppose	To Be Heard?	Reasons	Approve/ Decline	Conditions/Amendments
					<ul style="list-style-type: none"> Inconvenience to locals, safety issue and causing damage to vehicles. 		
Seli Salararaba Scutts	206 Riverview Rd, Huntly	023 Pages 177-178	Oppose	Yes	Proximity to Waikato River Impact on living things Transport effects <ul style="list-style-type: none"> Speed of trucks is over 100km/h Trucks create vibration Contaminants in fill <ul style="list-style-type: none"> Assessment of fill material 	Decline	Install hump on road between subject site and Huntly township
Robert Hunt	319B Rotowaro Rd, Huntly	024 Pages 179-180	Oppose	No	Transport effects <ul style="list-style-type: none"> Current activity causing damage to roads, proposal seeks to increase Hours of truck movements causes disruption to locals Community <ul style="list-style-type: none"> Past non-compliance Lack of consultation and therefore trust Contamination of water <ul style="list-style-type: none"> Effects to Lake Puketirini 	Decline	<ul style="list-style-type: none"> Limit trucks coming to site Keep area free of contamination
Freeway Design Limited	Quay Chambers , Level 7, 2 Commerce St, Auckland	025 Pages 181-184	Oppose	Yes	Transport effects <ul style="list-style-type: none"> Increase in volume of trucks from Great South Road via Tainui bridge with impact submitters hotel Dust/Air <ul style="list-style-type: none"> Dust on road in drier month impact views from hotel Noise <ul style="list-style-type: none"> Noise effects from Hotel given elevated location 	Decline	<ul style="list-style-type: none"> Prevent trucks accessing Riverside Road via Tainui Bridge Limits to control dust Conditions controlling noise
Transpower New Zealand Limited	PO Box 21154, Edgware Christchurch 8143	026 Pages 185-193	Neutral	No	Need to ensure activity does not impact Transpower's ability to ensure the operation, maintenance, upgrading and development of the National Grid	Neutral	<ul style="list-style-type: none"> NZEC compliance All machinery and plant shall maintain clearance of 4 m from conductors

Name	Address	Sub*	Support/ Oppose	To Be Heard?	Reasons	Approve/ Decline	Conditions/Amendments
Nicola Anne Maplesden	Nicola.maplesden@gmail.com	027 Pages 194-199	Oppose	Yes	<p>Contamination of water</p> <ul style="list-style-type: none"> • Risk to Lake Puketirini and Waikato River • Risk to water quality • Current activity results in runoff to River during rain <p>Cultural</p> <ul style="list-style-type: none"> • Risk to taonga of Maaori tangata whenua <p>Transport effects</p> <ul style="list-style-type: none"> • Increase in trucks are incompatible with residential development in the area • Quality of the road <p>Contaminants in fill</p> <ul style="list-style-type: none"> • Unknown nature of contaminants and potential impacts • Origin of contaminants • Contamination with FA3 – risk of disturbance <p>Dust/Air</p> <ul style="list-style-type: none"> • Dust from trucks <p>Ecology</p> <ul style="list-style-type: none"> • Effects to aquatic life <p>Monitoring and Compliance</p> <ul style="list-style-type: none"> • Past non-compliance means applicant cannot be trusted <p>Recreation</p> <ul style="list-style-type: none"> • Lake Puketirini is used for swimming as well as walking and cycling area. Lack of consultation and therefore trust 	Decline	Limit trucks coming to site
Melissa McDonald	166 Riverview Rd, Huntly	028 Pages 200-205	Oppose	No	<p>Transport effects</p> <ul style="list-style-type: none"> • Concern over safety of increased trucks on the road • Speed of trucks over 70km/h • Not safe to walk or cycle on Riverview Road 	Decline	<ul style="list-style-type: none"> • Limit trucks coming to site • Footpath from quarry to connect to footpath

Name	Address	Sub*	Support/ Oppose	To Be Heard?	Reasons	Approve/ Decline	Conditions/Amendments
					<ul style="list-style-type: none"> Risk from stones thrown from trucks Hours of trucks Noise <ul style="list-style-type: none"> Noise from trucks 		by Taxi hill plus safe place to cross <ul style="list-style-type: none"> Reduce speed of trucks to 50km/h No Saturday or Sunday work
Te Kauri Marae Trust	163 Hetherington Rd, Huntly	029 Pages 206-207	Oppose	yes if others similar	Cultural <ul style="list-style-type: none"> Too close to tupuna awa Waikato River is a taonga Raahui Pookeka was a place where people gathered to catch tuna Mana and mauri of the water, land, flora and fauna will not be enhanced Waikato River and Raahui Pookeka should be restored and protected against negative environmental effects Contamination of water <ul style="list-style-type: none"> Drinking water for 6 marae are downstream Dust Noise Transport effects	Decline	<ul style="list-style-type: none"> Limit trucks coming to site
Lorrel & Alex Mowles	130 Riverview Rd, Huntly	030 Pages 208-210	Oppose	No	Transport effects <ul style="list-style-type: none"> Driveway from property is concealed and current safety concerns when encountering trucks. Increased trucks will make this worse Trucks not adhering with speed limit Current activity causing damage to road including Tainui Bridge and Riverview Road Increase in material on the road from trucks Current activity creates disturbance from 6.30am Dust	Decline	

Name	Address	Sub*	Support/ Oppose	To Be Heard?	Reasons	Approve/ Decline	Conditions/Amendments
					<ul style="list-style-type: none"> Material on road from trucks Spills from fill material could contain contaminants such as asbestos Noise Stormwater <ul style="list-style-type: none"> Material spilled on road is washed into river Community <ul style="list-style-type: none"> No local job creation Conflict with Riverview Road subdivision Proposal reflects badly on Huntly Monitoring and compliance <ul style="list-style-type: none"> Concerns re: past non-compliance 		
Arthur & Esmæ Baylis	92a Hakanoa St, Huntly	031 Pages 211-212	Oppose	Yes	Other regions should deal with their own waste Contaminants in fill <ul style="list-style-type: none"> potentially toxic Contamination of water	Decline	
Andrea Dickinson	38 William St, Huntly	032 Pages 0213-214	Oppose	Yes	Other regions should deal with their own waste Contaminants in fill <ul style="list-style-type: none"> Waste products including asbestos Proximity to waterways and natural resources Health risks	Decline	
Warren Dickinson	38 William St, Huntly	033 Pages 215-216	Oppose	Yes	Dumping of asbestos/contaminated soil Contamination of water	Decline	
Jennifer Lee Molloy	319B Rotowaro Rd, Huntly	034 Pages 217-221	Oppose	Yes	Contamination of water <ul style="list-style-type: none"> acid sulphate leaching into the catchment groundwater and surface water runoff into tributary of Lake Puketirini Ecological effects	Decline	Limit trucks coming to site

Name	Address	Sub*	Support/ Oppose	To Be Heard?	Reasons	Approve/ Decline	Conditions/Amendments
					<ul style="list-style-type: none"> concerned that leaching from the fill will kill flora and fauna in the future Community <ul style="list-style-type: none"> Lake Puketirini is an asset for community Transport effects <ul style="list-style-type: none"> Damage to road and bridge from trucks from current activity Debris on road from trucks 		
Appollonia Johnston	24 parker Rd, Huntly	035 Pages 222-226	Oppose	No	Stormwater <ul style="list-style-type: none"> Stormwater from current activity flows across road to Waikato River Air/Dust <ul style="list-style-type: none"> Current activity creates dust plumes above quarry System using a water truck is not working Dust deposited on house facing the quarry from current activity Dust from proposed activity has potential to contaminate drinking water collected from roof Debris on road tracked to property Noise/Vibration <ul style="list-style-type: none"> Constant noise/vibration from increased truck numbers over 15 hours of day Noise from trucks slowing down at one lane bridge Potential for airborne asbestos when delivered to site Contaminants in fill <ul style="list-style-type: none"> Health risks associated with asbestos Climate Change <ul style="list-style-type: none"> Lack of plan for extreme weather events, e.g. can SRPs cope with high rainfall, power loss Bond value proposed is inadequate 	Decline	Limit trucks coming to site

Name	Address	Sub*	Support/ Oppose	To Be Heard?	Reasons	Approve/ Decline	Conditions/Amendments
Alan & Bronwyn Kosoof	120 Kimihi Rd, Huntly	036 Pages 227- 231	Oppose	Yes	<p>Contamination of water</p> <ul style="list-style-type: none"> • Proximity to Waikato River and Lake Puketirini • Discharge into streams which feed Lake Puketirini and Waikato River • Lake Puketirini is non-flushable due to depth • Risk to high quality of Lake Puketirini including during major adverse event • Concerns over contaminants allowable for FA2 and impact on Lake Puketirini • Lack of research on effects of some contaminants <p>Recreation</p> <ul style="list-style-type: none"> • Risk to recreational values of Lake Puketirini <p>Concerns over the applicant being “Gleeson Manged Fill Ltd” and not Gleeson Group as liability protection method. Land is owned by Gleeson Quarries Huntly Ltd</p> <p>Need for experienced operator given the complexity of the proposal</p> <p>Support Waahi Whaanui Trust</p>	Decline	<ul style="list-style-type: none"> • Applicant is Gleeson Managed Fill Ltd and Gleeson Quarries Huntly Ltd • Directors provide guarantee for actions • Fill be from Waikato only • Applicant accept that they be jointly liable along with Waikato DC in relation to harm to public from use of Lake Puketirini • Clean water flowing close to FA2 be diverted to sediment ponds and filtration areas before discharge • Wastewater from fill site and surrounds be contains and disposed of offsite • Applicant to employ independent and experienced manager to be approved by District and Regional Council. Or site managed by WDC and WRC via funding from applicant

WAIKATO DISTRICT COUNCIL

S42A Report

Appendix D

Original Submissions

Submission form
 (Form 13)

Submission on an application concerning resource consent that is subject to public notification by consent authority Sections 95A & 96 of the Resource Management Act 1991

SUBMISSIONS CLOSE AND MUST BE RECEIVED BY WAIKATO DISTRICT COUNCIL BY TUESDAY 16TH AUGUST 2022

To: Waikato District Council

Name of submitter (full name) Dorothy Claire MOLLAY

This is a submission on an application from Gleeson Managed Fill Limited to establish and operate a managed fill disposal activity that imports material to deposit within identified gullies (Fill Areas 2-4) located north of an existing quarry within the same site. To undertake soil disturbance of a piece of land (within Fill Area 3) as per the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health at 310 Riverview Road HUNTLY

* I am am not a trade competitor for the purpose of Section 308B of the Resource Management Act 1991

* Select one

† I am am not # directly affected by an effect of the subject matter of the submission that
 (a) adversely affects the environment; and
 (b) does not relate to trade competition or the effects of trade competition

† Delete this paragraph if you are not a trade competitor

Select one

The specific parts of the application that my submission relates to are:

Give details (attach separate sheets if necessary):

My Property is in the vicinity of works, I have pets on my property & the cleanfill description of acid sulphate soils includes substances such as Iron Sulphate. There is already a high Iron sulphate concentration at the advert exit at weavers lake, I'm worried the pH levels will be affected - killing the environment.

I support oppose am neutral to the part/s named above.

Give details:

The reasons for my views are.....

All the lakes in the Waikato have polluting problems. PLEASE, we need to do our utmost to prevent any further pollutants entering Lake Puketirini.

I seek the following decision from Waikato District Council: Approve Decline

Give precise details, including any parts of the application you wish to have amended and the general nature of any conditions sought.

.....

.....

.....

.....

.....

Number of additional sheets attached

I wish to be heard in support of my submission Yes No

If others make a similar submission, I will consider presenting a joint case with them at the hearing Yes No

Pursuant to section 100A of the Resource Management Act I request that you delegate your functions, powers and duties required to hear and decide the application to one or more hearings commissioners who are not members of the local authority Yes No

If you make a request under section 100A of the Resource Management Act, you must do so no later than 5 working days after the close of submissions and you may be liable to meet or contribute to the costs of the hearings commissioner or commissioners.

Signature of submitter of person authorized to sign on behalf of the submitter

B. L. Malloy Date 31/07/2022
 A signature is not required if you make your submission by electronic means

Address 7, Hillside Heights Road RD 1 HUNTING Postcode 3771

Email ginger.claire@xtra.co.nz Phone 07 828 8566 / 029 521 8566

Contact person's name (name and designation if applicable)

This is the person and the address to which all communications from the Council about the submission will be sent

Note to Submitter

The closing date for serving submissions on the consent authority is the 20th working day after the date on which public or limited notification is given. If the application is subject to limited notification, the consent authority may adopt an earlier closing date for submissions once the consent authority receives responses from all affected persons

You must serve a copy of your submission on the applicant whose address for service is Paua Planning Ltd, Kate Madsen, 180 Bawden Road, RD 2, Albany 0792 or email kate@pauaplanning.co.nz as soon as reasonably practicable after you have served your submission to Waikato District Council

If you are a trade competitor, your right to make a submission may be limited by the trade competition provisions in Part 11A of the Resource Management Act 1991

Written Submission

Postal Address Waikato District
Council, Private Bag 544,
Ngaruawahia 3742

Telephone 0800 492 452

Email Submission

Consent.submissions@waidc.govt.nz

The information you have provided on this form is required so that your submission can be processed under the RMA, and your name and address will be publicly available. The information will be stored on a public register and held by the Council, and may also be made available to the public on the Council's website. In addition, any on-going communications between you and Council will be held at Council's offices and may also be accessed upon request by a third party. Access to this information is administered in accordance with the Local Government Official Information and Meetings Act 1987 and the Privacy Act 1993. If you have any concerns about this, please discuss with a Council Planner prior to lodging your submission. If you would like to request access to, or correction of your details, please contact the Council.

Submission on an application concerning resource consent that is subject to public notification by consent authority *Sections 95A & 96 of the Resource Management Act 1991*

SUBMISSIONS CLOSE AND MUST BE RECEIVED BY WAIKATO DISTRICT COUNCIL BY TUESDAY 16TH AUGUST 2022

To: Waikato District Council

Name of submitter (full name)

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- (a) adversely affects the environment; and
- (b) does not relate to trade competition or the effects of trade competition

†Delete this paragraph if you are not a trade competitor

Select one

The specific parts of the application that my submission relates to are:

Give details (attach separate sheets if necessary):

.....

.....

.....

.....

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.....

I support oppose am neutral to the part/s named above.

Give details:

The reasons for my views are.....

.....

.....

.....

.....

.....

I seek the following decision from Waikato District Council: Approve Decline

Give precise details, including any parts of the application you wish to have amended and the general nature of any conditions sought.

.....
.....
.....
.....
.....

Number of additional sheets attached

I wish to be heard in support of my submission Yes No

If others make a similar submission, I will consider presenting a joint case with them at the hearing Yes No

Pursuant to section 100A of the Resource Management Act I request that you delegate your functions, powers and duties required to hear and decide the application to one or more hearings commissioners who are not members of the local authority Yes No

If you make a request under section 100A of the Resource Management Act, you must do so no later than 5 working days after the close of submissions and you may be liable to meet or contribute to the costs of the hearings commissioner or commissioners.

Signature of submitter of person authorized to sign on behalf of the submitter

..... Date

A signature is not required if you make your submission by electronic means

Address Postcode.....

Email Phone.....

Contact person's name (name and designation if applicable)

This is the person and the address to which all communications from the Council about the submission will be sent

Note to Submitter

The closing date for serving submissions on the consent authority is the 20th working day after the date on which public or limited notification is given. If the application is subject to limited notification, the consent authority may adopt an earlier closing date for submissions once the consent authority receives responses from all affected persons

You must serve a copy of your submission on the applicant whose address for service is Paua Planning Ltd, Kate Madsen, 180 Bawden Road, RD 2, Albany 0792 or email kate@pauaplanning.co.nz as soon as reasonably practicable after you have served your submission to Waikato District Council

If you are a trade competitor, your right to make a submission may be limited by the trade competition provisions in Part 11A of the Resource Management Act 1991

Written Submission

Postal Address Waikato District Council, Private Bag 544, Ngaruawahia 3742
Telephone 0800 492 452

Email Submission

Consent.submissions@waidc.govt.nz

The information you have provided on this form is required so that your submission can be processed under the RMA, and your name and address will be publicly available. The information will be stored on a public register and held by the Council, and may also be made available to the public on the Council's website. In addition, any on-going communications between you and Council will be held at Council's offices and may also be accessed upon request by a third party. Access to this information is administered in accordance with the Local Government Official Information and Meetings Act 1987 and the Privacy Act 1993. If you have any concerns about this, please discuss with a Council Planner prior to lodging your submission. If you would like to request access to, or correction of your details, please contact the Council.

Submission form

(Form 13)

Submission on an application concerning resource consent that is subject to public notification by consent authority Sections 95A & 96 of the Resource Management Act 1991

SUBMISSIONS CLOSE AND MUST BE RECEIVED BY WAIKATO DISTRICT COUNCIL BY TUESDAY 16TH AUGUST 2022

To: Waikato District Council

Name of submitter (full name) Denise Phyllis Lamb

This is a submission on an application from Gleeson Managed Fill Limited to establish and operate a managed fill disposal activity that imports material to deposit within identified gullies (Fill Areas 2-4) located north of an existing quarry within the same site. To undertake soil disturbance of a piece of land (within Fill Area 3) as per the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health at 310 Riverview Road HUNTLY

* I am am not a trade competitor for the purpose of Section 308B of the Resource Management Act 1991

* Select one

† I am and not # directly affected by an effect of the subject matter of the submission that

- (a) adversely affects the environment; and
- (b) does not relate to trade competition or the effects of trade competition

† Delete this paragraph if you are not a trade competitor

Select one

The specific parts of the application that my submission relates to are:

Give details (attach separate sheets if necessary):

The lack of monitoring that is going to be happening by a 3rd Party to ensure the 3 levels of waste are not contaminated and damaging to our environment and community.

The close proximity to Lake Puketurahi and the Waikato River.

I support oppose am neutral to the part/s named above.

Give details:

The reasons for my views are There could be leaching into our pristine fresh water lake Puketurahi that I swim and kayak in year round

The birdlife and fish that will be affected over time.

The noise, dust & potential smells that could affect the quality of life of both visitors, residents & tourists

I seek the following decision from Waikato District Council: Approve Decline

Give precise details, including any parts of the application you wish to have amended and the general nature of any conditions sought.

The current state of the road is disgusting. It's narrow, full of potholes, dirty. The footpath is inadequate and needs to be added to so that the pedestrians, cyclists remain safe.

Number of additional sheets attached none

I wish to be heard in support of my submission

Yes No

If others make a similar submission, I will consider presenting a joint case with them at the hearing

Yes No

Pursuant to section 100A of the Resource Management Act I request that you delegate your functions, powers and duties required to hear and decide the application to one or more hearings commissioners who are not members of the local authority

Yes No

If you make a request under section 100A of the Resource Management Act, you must do so no later than 5 working days after the close of submissions and you may be liable to meet or contribute to the costs of the hearings commissioner or commissioners.

Signature of submitter of person authorized to sign on behalf of the submitter

Denise Lamb Date 10/8/2022

A signature is not required if you make your submission by electronic means

Address 60 Riverside way RD1 Huntly Postcode 3771

Email denise.lamb@waikato.govt.nz Phone 027 2576794

Contact person's name (name and designation if applicable)

This is the person and the address to which all communications from the Council about the submission will be sent

Note to Submitter

The closing date for serving submissions on the consent authority is the 20th working day after the date on which public or limited notification is given. If the application is subject to limited notification, the consent authority may adopt an earlier closing date for submissions once the consent authority receives responses from all affected persons

You must serve a copy of your submission on the applicant whose address for service is Pau Planning Ltd, Kate Madsen, 180 Bawden Road, RD 2, Albany 0792 or email kate@pauapanning.co.nz as soon as reasonably practicable after you have served your submission to Waikato District Council

If you are a trade competitor, your right to make a submission may be limited by the trade competition provisions in Part 11A of the Resource Management Act 1991

Written Submission

Postal Address Waikato District Council, Private Bag 544, Ngaruawahia 3742

Telephone 0800 492 452

Email Submission

Consent.submissions@waikato.govt.nz

The information you have provided on this form is required so that your submission can be processed under the RMA, and your name and address will be publicly available. The information will be stored on a public register and held by the Council, and may also be made available to the public on the Council's website. In addition, any on-going communications between you and Council will be held at Council's offices and may also be accessed upon request by a third party. Access to this information is administered in accordance with the Local Government Official Information and Meetings Act 1987 and the Privacy Act 1993. If you have any concerns about this, please discuss with a Council Planner prior to lodging your submission. If you would like to request access to, or correction of your details, please contact the Council.

Submission form
 (Form 13)

Submission on an application concerning resource consent that is subject to public notification by consent authority Sections 95A & 96 of the Resource Management Act 1991

SUBMISSIONS CLOSE AND MUST BE RECEIVED BY WAIKATO DISTRICT COUNCIL BY TUESDAY 16TH AUGUST 2022

To: Waikato District Council

Name of submitter (full name) Wayne Robert Rutherford

This is a submission on an application from Gleeson Managed Fill Limited to establish and operate a managed fill disposal activity that imports material to deposit within identified gullies (Fill Areas 2-4) located north of an existing quarry within the same site. To undertake soil disturbance of a piece of land (within Fill Area 3) as per the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health at 310 Riverview Road HUNTLY

* I am am not a trade competitor for the purpose of Section 308B of the Resource Management Act 1991

* Select one

† I am am not # directly affected by an effect of the subject matter of the submission that

- (a) adversely affects the environment; and
- (b) does not relate to trade competition or the effects of trade competition

† Delete this paragraph if you are not a trade competitor
 # Select one

The specific parts of the application that my submission relates to are:

Give details (attach separate sheets if necessary):

environmental - see attached

I support oppose am neutral to the part/s named above.

Give details:

The reasons for my views are attached

I seek the following decision from Waikato District Council: Approve Decline

Give precise details, including any parts of the application you wish to have amended and the general nature of any conditions sought.

attached

Number of additional sheets attached

I wish to be heard in support of my submission

Yes No

If others make a similar submission, I will consider presenting a joint case with them at the hearing

Yes No

Pursuant to section 100A of the Resource Management Act I request that you delegate your functions, powers and duties required to hear and decide the application to one or more hearings commissioners who are not members of the local authority

Yes No

If you make a request under section 100A of the Resource Management Act, you must do so no later than 5 working days after the close of submissions and you may be liable to meet or contribute to the costs of the hearings commissioner or commissioners.

Signature of submitter of person authorized to sign on behalf of the submitter

[Handwritten signature]

Date

A signature is not required if you make your submission by electronic means

Address 219 B Rotowaro Rd Postcode 3774

Email redland89@hotmail.com Phone 0211902537

Contact person's name (name and designation if applicable) maree.rutherford@hotmail.com

This is the person and the address to which all communications from the Council about the submission will be sent

Note to Submitter

The closing date for serving submissions on the consent authority is the 20th working day after the date on which public or limited notification is given. If the application is subject to limited notification, the consent authority may adopt an earlier closing date for submissions once the consent authority receives responses from all affected persons

You must serve a copy of your submission on the applicant whose address for service is Paua Planning Ltd, Kate Madsen, 180 Bawden Road, RD 2, Albany 0792 or email kate@pauaplanning.co.nz as soon as reasonably practicable after you have served your submission to Waikato District Council

If you are a trade competitor, your right to make a submission may be limited by the trade competition provisions in Part 11A of the Resource Management Act 1991

Written Submission

Postal Address Waikato District Council, Private Bag 544, Ngaruawahia 3742. Telephone 0800 492 452

Email Submission

Consent.submissions@waikato.govt.nz

The information you have provided on this form is required so that your submission can be processed under the RMA, and your name and address will be publicly available. The information will be stored on a public register and held by the Council, and may also be made available to the public on the Council's website. In addition, any on-going communications between you and Council will be held at Council's offices and may also be accessed upon request by a third party. Access to this information is administered in accordance with the Local Government Official Information and Meetings Act 1987 and the Privacy Act 1993. If you have any concerns about this, please discuss with a Council Planner prior to lodging your submission. If you would like to request access to, or correction of your details, please contact the Council.

Submission form

Notice of submission under the Resource Management Act 1991 (pursuant to section 96) form 13

Notes

- A signature is not required if you are lodging your submission by electronic means.
- If you are making a submission to the Environmental Protection Agency (EPA) please use form 16B. Refer to the EPA website www.epa.govt.nz or call 0800 CALL EPA (22 55 372).
- The closing date for providing your submission to Waikato Regional Council is 20 working days after public notification or notice is served. You must also provide a copy of your submission to the applicant. This should be done as soon as possible.
- If you need any further help, please phone our Resource Use staff on **0800 800 402**.
- You can send your submission by:
 - Post: Waikato Regional Council, Private Bag 3038, Waikato Mail Centre, Hamilton 3240
 - Fax: 07 859 0998
 - Email: RCsubmissions@waikatoregion.govt.nz

Office use only

File no:
Consent no:

Section 1: Application details

Applicant name: _____

Description of proposal:

(Briefly describe the type of consent, and the nature and location of the activity. If the proposal is for a change or cancellation of an existing consent condition, please detail the type and location of consent, the relevant condition and the proposed change. If the application is for a transfer of a water or discharge permit, provide details of the existing activity site and, if relevant, the part of the permit proposed to be transferred.)

every aspect.

The specific parts of the application that this submission relates to are:

Section 2: Submitter details

We will use your email address as preferred address for service, unless you advise otherwise.

Name	Full name of submitter:	<i>Wayne Robert Rutherford</i>
	Contact person (include designation if applicable):	
Postal address	Street/RD/PO Box/Private Bag:	<i>219B Rotarua Rd Rd 1</i>
	Suburb:	<i>Huntly</i>
	Town/city:	<i>Waikato</i>
	Postcode:	<i>3741</i>
Residential address If different from postal address	Street:	<i>as above</i>
	Suburb:	
	Town/city:	
	Postcode:	
Email address		
Phone number/s	Home:	Business:
	Mobile:	<i>0211902537</i> Fax:

Waikato Regional Council, 160 Ward Street, Private Bag 3038, Waikato Mail Centre, Hamilton 3240.
Phone our enquiries officer on 0800 800 402. waikatoregion.govt.nz

Section 3: Submission on proposal

Please detail your submission below. Attach additional pages if necessary.

I/we (tick one option only):

- Support the application/s
- Oppose the application/s
- Neither support nor oppose the application/s (neutral submission)

My submission:

attached

The reasons for my views are:

attached

The specific parts of the application that my submission relates to are:

Our property is within the vicinity of the works. We are very concerned about run off from this proposed sight and the long term damage to Lake Puketirini. Can you 100% assure us (community) that any sort of run off **WILL NOT CONTAIN** any contaminants? Who will, and how often will this be checked and managed? Perhaps you should familiarize yourselves with the story of Erin Brokovich, the parallels are quite striking. In 5, 10 or more years from now, will these contaminants damage wildlife, cause the lake to be unswimmable, be dangerous to our locals. Can you guarantee that what you are doing **WON'T** cause damage to our future generations? i.e. birth defects, miscarriages and the list goes on.

The reasons for my views are:

We have been to a meeting and spoken to a lot of people in the community who have opposed this in the past. The community has a wealth of knowledge on the area and what the long-term damage will be. We **DO NOT WANT** the Council to allow Gleeson Cox to go ahead with this fill disposal activity. By allowing this to happen, you are harming your constituents, families and forever damaging one of the last remaining swimmable lakes in the Waikato. As a Council, where is your conscience? Dumps have to go somewhere, but certainly not in the middle of an area where there are families and farms.

If the current government wants us to drive electric vehicles in the future to help save our planet, it is beyond me how you can even be considering this proposal. You are turning Huntly into Auckland's toilet!



Wayne Rutherford



For internal use only

ECM Application # LUC0488/22

ECM

SUBMISSION #.....005.....

CUSTOMER #

Submission form

(Form I3)

Submission on an application concerning resource consent that is subject to public notification by consent authority Sections 95A & 96 of the Resource Management Act 1991

SUBMISSIONS CLOSE AND MUST BE RECEIVED BY WAIKATO DISTRICT COUNCIL BY TUESDAY 16TH AUGUST 2022

To: Waikato District Council

Name of submitter (full name) Maree Frances Rutherford

This is a submission on an application from Gleeson Managed Fill Limited to establish and operate a managed fill disposal activity that imports material to deposit within identified gullies (Fill Areas 2-4) located north of an existing quarry within the same site. To undertake soil disturbance of a piece of land (within Fill Area 3) as per the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health at 310 Riverview Road HUNTLY

*I am am not a trade competitor for the purpose of Section 308B of the Resource Management Act 1991

* Select one

† I am am not # directly affected by an effect of the subject matter of the submission that

- (a) adversely affects the environment; and
- (b) does not relate to trade competition or the effects of trade competition

†Delete this paragraph if you are not a trade competitor

Select one

The specific parts of the application that my submission relates to are:

Give details (attach separate sheets if necessary):

attached - own lifestyle

I support oppose am neutral to the part/s named above.

Give details:

The reasons for my views are..... attached.....

I seek the following decision from Waikato District Council: Approve Decline

Give precise details, including any parts of the application you wish to have amended and the general nature of any conditions sought.

attached

Number of additional sheets attached

I wish to be heard in support of my submission

Yes No

If others make a similar submission, I will consider presenting a joint case with them at the hearing

Yes No

Pursuant to section 100A of the Resource Management Act I request that you delegate your functions, powers and duties required to hear and decide the application to one or more hearings commissioners who are not members of the local authority

Yes No

If you make a request under section 100A of the Resource Management Act, you must do so no later than 5 working days after the close of submissions and you may be liable to meet or contribute to the costs of the hearings commissioner or commissioners.

Signature of submitter of person authorized to sign on behalf of the submitter

[Handwritten signature]

Date 5th August 22

A signature is not required if you make your submission by electronic means

Address 219 B Rotowaro Rd Postcode 3741

Email mareeruth@ford@hotmail.com Phone 021740583

Contact person's name (name and designation if applicable) mareeruth@ford@hotmail.com

This is the person and the address to which all communications from the Council about the submission will be sent

Note to Submitter

The closing date for serving submissions on the consent authority is the 20th working day after the date on which public or limited notification is given. If the application is subject to limited notification, the consent authority may adopt an earlier closing date for submissions once the consent authority receives responses from all affected persons

You must serve a copy of your submission on the applicant whose address for service is Paua Planning Ltd, Kate Madsen, 180 Bawden Road, RD 2, Albany 0792 or email kate@pauaplanning.co.nz as soon as reasonably practicable after you have served your submission to Waikato District Council

If you are a trade competitor, your right to make a submission may be limited by the trade competition provisions in Part 11A of the Resource Management Act 1991

Written Submission

Postal Address Waikato District Council, Private Bag 544, Ngaruawahia 3742 Telephone 0800 492 452

Email Submission

Consent.submissions@waidc.govt.nz

The information you have provided on this form is required so that your submission can be processed under the RMA, and your name and address will be publicly available. The information will be stored on a public register and held by the Council, and may also be made available to the public on the Council's website. In addition, any on-going communications between you and Council will be held at Council's offices and may also be accessed upon request by a third party. Access to this information is administered in accordance with the Local Government Official Information and Meetings Act 1987 and the Privacy Act 1993. If you have any concerns about this, please discuss with a Council Planner prior to lodging your submission. If you would like to request access to, or correction of your details, please contact the Council.

Submission form

Notice of submission under the Resource Management Act 1991 (pursuant to section 96) form 13

Notes

- A signature is not required if you are lodging your submission by electronic means.
- If you are making a submission to the Environmental Protection Agency (EPA) please use form 16B. Refer to the EPA website www.epa.govt.nz or call 0800 CALL EPA (22 55 372).
- The closing date for providing your submission to Waikato Regional Council is 20 working days after public notification or notice is served. You must also provide a copy of your submission to the applicant. This should be done as soon as possible.
- If you need any further help, please phone our Resource Use staff on **0800 800 402**.
- You can send your submission by:
 - Post: Waikato Regional Council, Private Bag 3038, Waikato Mail Centre, Hamilton 3240
 - Fax: 07 859 0998
 - Email: RCsubmissions@waikatoregion.govt.nz

Office use only

File no:
Consent no:

Section 1: Application details

Applicant name: _____

Description of proposal:

(Briefly describe the type of consent, and the nature and location of the activity. If the proposal is for a change or cancellation of an existing consent condition, please detail the type and location of consent, the relevant condition and the proposed change. If the application is for a transfer of a water or discharge permit, provide details of the existing activity site and, if relevant, the part of the permit proposed to be transferred.)

every aspect.

The specific parts of the application that this submission relates to are:

Section 2: Submitter details

We will use your email address as preferred address for service, unless you advise otherwise.

Name	Full name of submitter:	<i>Maree ^{Frances} Rutherford</i>
	Contact person (include designation if applicable):	
Postal address	Street/RD/PO Box/Private Bag:	<i>219 B Rotowaro Rd Rd 1</i>
	Suburb:	<i>Huntly</i>
	Town/city:	<i>Waikato</i>
	Postcode:	<i>3711</i>
Residential address If different from postal address	Street:	<i>As above</i>
	Suburb:	
	Town/city:	
	Postcode:	
Email address		<i>mareerutherford@hotmail.com</i>
Phone number/s	Home:	<i>-</i>
	Business:	<i>01 8436554</i>
	Mobile:	<i>021 770583</i>
	Fax:	<i>-</i>

Waikato Regional Council, 160 Ward Street, Private Bag 3038, Waikato Mail Centre, Hamilton 3240.
Phone our enquiries officer on 0800 800 402. waikatoregion.govt.nz

Section 3: Submission on proposal

Please detail your submission below. Attach additional pages if necessary.

I/we (tick one option only):

- Support the application/s
- Oppose the application/s
- Neither support nor oppose the application/s (neutral submission)

My submission:

attached

The reasons for my views are:

attached

I seek the following decision from the consent authority:

(Give precise details, including the parts of the application you wish to have amended and the general nature of any conditions sought.)

Please tick either yes or no to the following options:

I/we wish to be heard in support of this submission

Yes No

I/we will consider presenting a joint case at a hearing if others make a similar submission

Yes No

Signature of submitter: _____ Date: _____

(or person authorised to sign on behalf of submitter)

The information you have provided on this form will be stored on a public register and held by the council. The details (including your name and submission contents) may also be made available to the public on the council's website or on request, with your contact details removed. These details are collected to inform the general public and community groups about all consent applications which have been received by the council. If you would like to request access to, or correction of your details, please contact the council.

The specific parts of the application that my submission relates to are:

We were only made aware of the existence of this application on Saturday 30th July, when we received it in the mail. It has not left us very much time to gather sufficient information to go into this in any great depth.

Our property at 219B Rotowaro Road is within the vicinity of the works. As can be seen from the attached photos, we currently have a view of rolling hills and cattle. We have animals roaming freely on our property. There is bound to be some sort of run off from this proposed sight, not to mention – smell, air pollutants etc. My understanding is that the seepage, leakage from this proposed site will directly and indirectly impact our property.

"If your property is sold during the submission period, it is your responsibility to notify the new Land Owner/Registered Proprietor of this Resource Consent Application". I think that is a rather ominous statement. Would we have to "warn" potential buyers if there was a playground for children and parkland going in?

Can you 100% assure us that – there will be no smell, no run off and no air pollutants and absolutely no damage to Lake Puketirini and surrounding area/s? As a community we DO NOT WANT this to go ahead and thus prevent future environmental problems.

The reasons for my views are:

We chose to live in the country and close to a beautiful lake. This was to be our forever home! You are going to potentially take this away from us. When, in future years the impact of what you are doing becomes evident, who will help us pay our mortgage on a property that is worthless and the views are ugly? If, by some lack of insight and judgement you let this go ahead, will our rates go down instead of continually increasing?

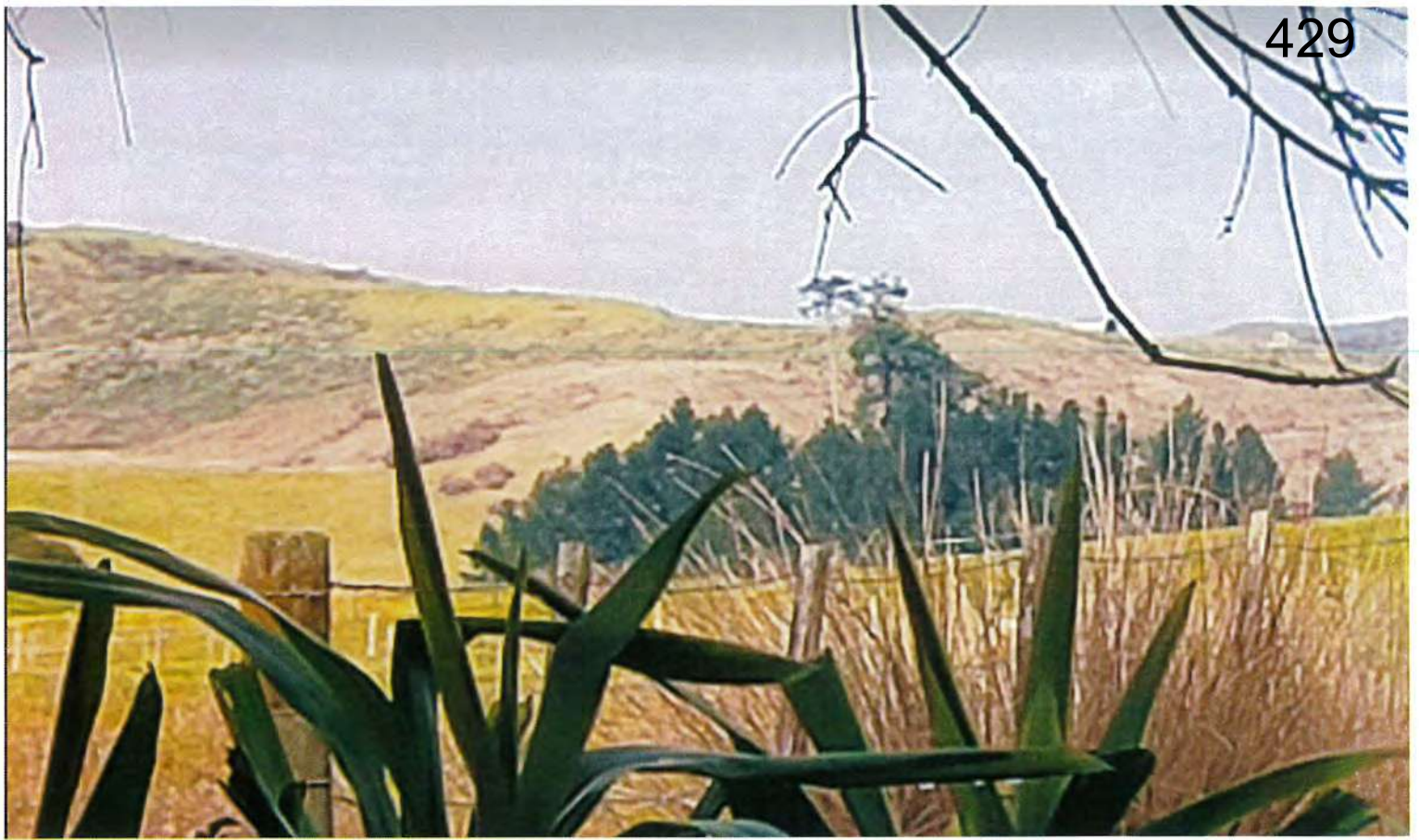
We grow our own fruit and vegetables for our (family) consumption, at what point does run off affect and infect what we have? Can you guarantee that there will be no topical pollutants from this site on our homegrown food?

I challenge the Council to supply us with a list of the positives we can expect if this goes ahead.

What is the financial gain for Huntly? This community has a very strong backbone with a lot of people with a lot of knowledge on the area and they have indepth information and facts to support these applications. We and many others DO NOT WANT Gleeson Cox to go ahead with this fill disposal activity. By allowing this to happen, you are harming your constituents, families and forever damaging our lifestyle and assets and those of future generations.

You are putting a 'managed' fill on the top of the hill containing, among other things, asbestos, acid sulphate soils, marine sediment. There is a river on one side and lakes on the other. May your common sense prevail!

Maree Rutherford



You are replacing this
with this ↓





DOC-7128833

12 August 2022

Waikato Regional Council
Private Bag 3038
Waikato Mail Centre
Hamilton 3240
RCsubmissions@waikatoregion.govt.nz

Waikato District Council
Private Bag 544
Ngaruawahia 3742
Consent.submissions@waidc.govt.nz

Dear Sir/Madam,

Submissions on Gleeson Managed Fill Limited
APP144475: Discharge permits, water permits and land use consents
LUC0488/22: Land use consent

I refer to the applications by Gleeson Managed Fill Limited for resource consents to establish and operate a managed fill disposal activity.

Please find enclosed a submission by the Director-General of Conservation Tumuaki-Ahurei in respect of these applications. You will notice the submission opposes the applications, but also seeks that if consents are granted then appropriate conditions are imposed to protect conservation values. The submission identifies the Director-General's concerns.

Please contact Murray Brass in the first instance if you wish to discuss any of the matters raised in this submission (email: mbrass@doc.govt.nz phone: 027 213 3592).

Yours sincerely



Tinaka Mearns
Operations Manager, Waikato

Copy: Gleeson Managed Fill Limited, C/- Kate Madsen, Paua Planning Limited,
kate@pauaplanning.co.nz

Form 13: Submission on publicly notified application concerning resource consent

Resource Management Act 1991

To: Waikato Regional Council
Waikato District Council

Name of submitter: Penny Nelson, Director-General of Conservation Tumuaki-Ahurei

Applicant: Gleeson Managed Fill Limited

Location: 310 Riverview Road, Huntly

Description of activity:

APP14475:

1. Earthworks and vegetation clearance
2. Discharge overburden to land
3. Discharge Cleanfill and Managed Fill to land
4. Discharge stormwater and treated water
5. Take and divert groundwater and divert stormwater
6. Undertake stream diversions, reclamation of streams and associated bed disturbance
7. Discharge treated stormwater to land and/or water within 100 metres of a natural wetland

LUC0488/22:

To establish and operate a managed fill disposal activity that imports material to deposit within identified gullies (Fill Areas 2-4) located north of an existing quarry within the same site.

To undertake soil disturbance of a piece of land (within Fill Area 3) as per the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health.

Application number: Waikato Regional Council: APP144475
 Waikato District Council: LUC0488/22

Trade competition: I am not a trade competitor for the purposes of section 308B of the Resource Management Act 1991.

My submission relates to: The whole applications.

My submission is: I oppose the applications, and consider that if consents are granted then conditions are required to protect conservation values.

The reasons for my submission are that:

1. The site of the proposed fill operation is likely to be habitat for lizard species including copper skink, and a range of bird species including threatened species.
2. The applicant has identified shortfin eels and koura within the site, but other freshwater species recorded in the vicinity include the At Risk species longfin eel, giant kōkopu, inanga and torrentfish, and the Threatened species shortjaw kōkopu and lamprey.
3. The site is used by long-tailed bats, which have a threat classification of 'Nationally Critical' (the highest threat, the same as the kākāpō).
4. The fill operation has the potential to adversely affect these conservation values through direct disturbance, loss of habitat, sedimentation, and changes to hydrology. It will also result in the loss of gully systems, wetlands and ephemeral and intermittent streams, and associated aquatic values.
5. Despite the presence of these conservation values, the Ecological Impact Assessment (Boffa Miskell, November 2019) was undertaken without surveys for lizards, bats or breeding wetland birds and waterfowl, so is significantly incomplete. It appears that some surveys have since been undertaken (eg there is reference to bat surveys), but the results of these have not been clearly incorporated into the final application.
6. The application places significant reliance on conditions and management plans which are as yet unconfirmed, and as noted above it is unclear to what extent ecological surveys have been undertaken and responded to in those conditions and management plans. The proffered draft conditions (as contained in the application

information on the WDC website) do not include district consent conditions, so it is unclear if or how bat and fauna management plans referred to in other parts of the application would be given effect.

7. The consent durations sought of 35 years are unreasonable (particularly for discharges) given the potential for cumulative effects, and the fact that there will be significant changes to planning legislation and the regional plan framework over that time.

Decision sought:

Consents:

That unless conservation values can be adequately protected and the matters raised above addressed, the applications are declined.

Conditions:

That if consents are granted, they include conditions which adequately protect conservation values. This would include ensuring that:

- the activity and management of effects are clearly and coherently described;
- management plans are effective;
- there is adequate monitoring to detect and respond to any adverse effects which do arise; and
- consent durations are appropriate for the activity and effects.

Management Plans:

That if management plans are included in consents, the conditions:

- contain clear and effects-based objectives and performance standards, to ensure that environmental outcomes are understood from the outset, and that the management plans will lead to actions 'on the ground' to achieve those outcomes;
- have ongoing effect, and require ongoing implementation;
- set intervention thresholds to allow review and intervention if objectives are not being met;
- require ongoing monitoring and reporting;
- provide for adaptive management where appropriate; and
- are enforceable throughout the duration of the consents.

Wildlife Act 1953:

I advise that Wildlife Act authorisation is likely to be required to address impacts on bats and lizards, and any consents granted will need to ensure consistency with this.

I do wish to be heard in support of my submission.



.....
Tinaka Mearns
Operations Manager, Waikato
Acting pursuant to delegated authority

12/08/2022

Date

Note: A copy of the Instrument of Delegation may be inspected at the Director-General's office at Conservation House Whare Kaupapa Atawhai, 18/32 Manners Street, Wellington 6011

Electronic address for service of submitter: mbrass@doc.govt.nz

Telephone: 027 213 3592

Postal address: PO Box 5244, Dunedin 9054

Contact person: Murray Brass, Senior RMA Planner

Submission form

(Form 13)

Submission on an application concerning resource consent that is subject to public notification by consent authority Sections 95A & 96 of the Resource Management Act 1991

SUBMISSIONS CLOSE AND MUST BE RECEIVED BY WAIKATO DISTRICT COUNCIL BY TUESDAY 16TH AUGUST 2022

To: Waikato District Council

Name of submitter (full name) Kevin Wickens

This is a submission on an application from Gleeson Managed Fill Limited to establish and operate a managed fill disposal activity that imports material to deposit within identified gullies (Fill Areas 2-4) located north of an existing quarry within the same site. To undertake soil disturbance of a piece of land (within Fill Area 3) as per the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health at 310 Riverview Road HUNTLY

*I am am not a trade competitor for the purpose of Section 308B of the Resource Management Act 1991
 * Select one

† I am am not # directly affected by an effect of the subject matter of the submission that
 (a) adversely affects the environment; and
 (b) does not relate to trade competition or the effects of trade competition

†Delete this paragraph if you are not a trade competitor
 # Select one

The specific parts of the application that my submission relates to are:

Give details (attach separate sheets if necessary):

Speed of trucks going past gateway, Air borne dust and grit, Serious Vibration to the house, Noise. Transporting Contaminated Product through residential Area. Damage to the road is already visible.

I support oppose am neutral to the part/s named above.
 Give details:

The reasons for my views are. long term health, disruption high impact of Heavy Vehicular Movement 3.5 meters from our gateway. With my neighbour we observe the dust trail that follows these trucks, a combination of truck and from the road.

I seek the following decision from Waikato District Council: Approve Decline

Give precise details, including any parts of the application you wish to have amended and the general nature of any conditions sought.

.....
.....
.....
.....
.....

Number of additional sheets attached

I wish to be heard in support of my submission Yes No

If others make a similar submission, I will consider presenting a joint case with them at the hearing Yes No

Pursuant to section 100A of the Resource Management Act I request that you delegate your functions, powers and duties required to hear and decide the application to one or more hearings commissioners who are not members of the local authority Yes No

If you make a request under section 100A of the Resource Management Act, you must do so no later than 5 working days after the close of submissions and you may be liable to meet or contribute to the costs of the hearings commissioner or commissioners.

Signature of submitter of person authorized to sign on behalf of the submitter

K. S. Sifers Date *11/8/2022*
A signature is not required if you make your submission by electronic means

Address *184 Riverview Road Huntly.* Postcode *3700*

Email *WIKSTAPANTHERHARD@G.MAIL.COM* Phone *02102846629*

Contact person's name (name and designation if applicable)

This is the person and the address to which all communications from the Council about the submission will be sent

Note to Submitter

The closing date for serving submissions on the consent authority is the 20th working day after the date on which public or limited notification is given. If the application is subject to limited notification, the consent authority may adopt an earlier closing date for submissions once the consent authority receives responses from all affected persons

You must serve a copy of your submission on the applicant whose address for service is Paua Planning Ltd, Kate Madsen, 180 Bawden Road, RD 2, Albany 0792 or email kate@pauaplanning.co.nz as soon as reasonably practicable after you have served your submission to Waikato District Council

If you are a trade competitor, your right to make a submission may be limited by the trade competition provisions in Part 11A of the Resource Management Act 1991

Written Submission

Postal Address Waikato District Council, Private Bag 544, Ngaruawahia 3742
Telephone 0800 492 452

Email Submission

Consent.submissions@waidc.govt.nz

The information you have provided on this form is required so that your submission can be processed under the RMA, and your name and address will be publicly available. The information will be stored on a public register and held by the Council, and may also be made available to the public on the Council's website. In addition, any on-going communications between you and Council will be held at Council's offices and may also be accessed upon request by a third party. Access to this information is administered in accordance with the Local Government Official Information and Meetings Act 1987 and the Privacy Act 1993. If you have any concerns about this, please discuss with a Council Planner prior to lodging your submission. If you would like to request access to, or correction of your details, please contact the Council.

Submission form

Notice of submission under the Resource Management Act 1991 (pursuant to section 96) form 13

Notes

- A signature is not required if you are lodging your submission by electronic means.
- If you are making a submission to the Environmental Protection Agency (EPA) please use form 16B. Refer to the EPA website www.epa.govt.nz or call 0800 CALL EPA (22 55 372).
- The closing date for providing your submission to Waikato Regional Council is 20 working days after public notification or notice is served. You must also provide a copy of your submission to the applicant. This should be done as soon as possible.
- If you need any further help, please phone our Resource Use staff on **0800 800 402**.
- You can send your submission by:
 - Post: Waikato Regional Council, Private Bag 3038, Waikato Mail Centre, Hamilton 3240
 - Fax: 07 859 0998
 - Email: RCsubmissions@waikatoregion.govt.nz

Office use only

File no:
Consent no:

Section 1: Application details

Applicant name: Kevin Wickens

Description of proposal:

(Briefly describe the type of consent, and the nature and location of the activity. If the proposal is for a change or cancellation of an existing consent condition, please detail the type and location of consent, the relevant condition and the proposed change. If the application is for a transfer of a water or discharge permit, provide details of the existing activity site and, if relevant, the part of the permit proposed to be transferred.)

Speed of trucks going past gateway, Airbourne dust and grit, Serious Vibration to the house, NOISE, Damage to the road, Transporting Contaminated Product through residential Area

The specific parts of the application that this submission relates to are:

Section 2: Submitter details

We will use your email address as preferred address for service, unless you advise otherwise.

Name	Full name of submitter: <u>Kevin Wickens</u>
	Contact person (include designation if applicable):
Postal address	Street/RD/PO Box/Private Bag:
	Suburb:
	Town/city: <u>Aunty.</u>
	Postcode: <u>3200</u>
Residential address If different from postal address	Street: <u>184 River View ROAD</u>
	Suburb:
	Town/city:
	Postcode:
Email address	<u>WIKSTAPAN THERHARD @ G Mail . Com</u>
Phone number/s	Home: Business:
	Mobile: <u>02102846629</u> Fax:

Section 3: Submission on proposal

Please detail your submission below. Attach additional pages if necessary.
I/we (tick one option only):

- Support the application/s
 Oppose the application/s
 Neither support nor oppose the application/s (neutral submission)

My submission:

Speed of trucks going past gateway, Airborne ~~at~~ dust and grit, serious vibration to the house, Noise, Transporting Contaminated Product through a residential Area, Damage to the road is already visible

The reasons for my views are:

long term health, disruption high impact of heavy vehicular movement, 3.5 meters from our gateway. With my neighbour we observe the dust trail that follows these trucks, a combination of truck and from the road.

Submission form

I seek the following decision from the consent authority:
(Give precise details, including the parts of the application you wish to have amended and the general nature of any conditions sought.)

[Empty rectangular box for providing details of the application and conditions sought.]

Please tick either yes or no to the following options:
I/we wish to be heard in support of this submission

Yes No

I/we will consider presenting a joint case at a hearing if others make a similar submission

Yes No

Signature of submitter: *K. A. Siders* Date: 11/8/2022
(or person authorised to sign on behalf of submitter)

The information you have provided on this form will be stored on a public register and held by the council. The details (including your name and submission contents) may also be made available to the public on the council's website or on request, with your contact details removed. These details are collected to inform the general public and community groups about all consent applications which have been received by the council. If you would like to request access to, or correction of your details, please contact the council.

Submission on an application concerning resource consent that is subject to public notification by consent authority *Sections 95A & 96 of the Resource Management Act 1991*

SUBMISSIONS CLOSE AND MUST BE RECEIVED BY WAIKATO DISTRICT COUNCIL BY TUESDAY 16TH AUGUST 2022

To: Waikato District Council

Name of submitter (full name)

This is a submission on an application from Gleeson Managed Fill Limited to establish and operate a managed fill disposal activity that imports material to deposit within identified gullies (Fill Areas 2-4) located north of an existing quarry within the same site. To undertake soil disturbance of a piece of land (within Fill Area 3) as per the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health at 310 Riverview Road HUNTLY

*I am am not a trade competitor for the purpose of Section 308B of the Resource Management Act 1991

* Select one

† I am am not # directly affected by an effect of the subject matter of the submission that

- (a) adversely affects the environment; and
- (b) does not relate to trade competition or the effects of trade competition

†Delete this paragraph if you are not a trade competitor

Select one

The specific parts of the application that my submission relates to are:

Give details (attach separate sheets if necessary):

.....

.....

.....

.....

.....

.....

.....

I support oppose am neutral to the part/s named above.

Give details:

The reasons for my views are.....

.....

.....

.....

.....

.....

I seek the following decision from Waikato District Council: Approve Decline

Give precise details, including any parts of the application you wish to have amended and the general nature of any conditions sought.

.....
.....
.....
.....
.....

Number of additional sheets attached

I wish to be heard in support of my submission Yes No

If others make a similar submission, I will consider presenting a joint case with them at the hearing Yes No

Pursuant to section 100A of the Resource Management Act I request that you delegate your functions, powers and duties required to hear and decide the application to one or more hearings commissioners who are not members of the local authority Yes No

If you make a request under section 100A of the Resource Management Act, you must do so no later than 5 working days after the close of submissions and you may be liable to meet or contribute to the costs of the hearings commissioner or commissioners.

Signature of submitter of person authorized to sign on behalf of the submitter

..... Date
A signature is not required if you make your submission by electronic means

Address Postcode.....

Email Phone.....

Contact person's name (name and designation if applicable)

This is the person and the address to which all communications from the Council about the submission will be sent

Note to Submitter

The closing date for serving submissions on the consent authority is the 20th working day after the date on which public or limited notification is given. If the application is subject to limited notification, the consent authority may adopt an earlier closing date for submissions once the consent authority receives responses from all affected persons

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If you are a trade competitor, your right to make a submission may be limited by the trade competition provisions in Part 11A of the Resource Management Act 1991

<p>Written Submission</p> <p>Postal Address Waikato District Council, Private Bag 544, Ngaruawahia 3742</p> <p>Telephone 0800 492 452</p>	<p>Email Submission</p> <p>Consent.submissions@waidc.govt.nz</p>	<p>The information you have provided on this form is required so that your submission can be processed under the RMA, and your name and address will be publicly available. The information will be stored on a public register and held by the Council, and may also be made available to the public on the Council's website. In addition, any on-going communications between you and Council will be held at Council's offices and may also be accessed upon request by a third party. Access to this information is administered in accordance with the Local Government Official Information and Meetings Act 1987 and the Privacy Act 1993. If you have any concerns about this, please discuss with a Council Planner prior to lodging your submission. If you would like to request access to, or correction of your details, please contact the Council.</p>
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Submission form
 (Form 13)

Submission on an application concerning resource consent that is subject to public notification by consent authority Sections 95A & 96 of the Resource Management Act 1991

SUBMISSIONS CLOSE AND MUST BE RECEIVED BY WAIKATO DISTRICT COUNCIL BY TUESDAY 16TH AUGUST 2022

To: Waikato District Council

Name of submitter (full name) *Paul Vitasovich*

This is a submission on an application from Gleeson Managed Fill Limited to establish and operate a managed fill disposal activity that imports material to deposit within identified gullies (Fill Areas 2-4) located north of an existing quarry within the same site. To undertake soil disturbance of a piece of land (within Fill Area 3) as per the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health at 310 Riverview Road HUNTLY

* I am am not a trade competitor for the purpose of Section 308B of the Resource Management Act 1991

* Select one

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- (a) adversely affects the environment; and
- (b) does not relate to trade competition or the effects of trade competition

† Delete this paragraph if you are not a trade competitor

Select one

The specific parts of the application that my submission relates to are:

Give details (attach separate sheets if necessary):

All parts

I support oppose am neutral to the part/s named above.

Give details:

The reasons for my views are.....

As attached

I seek the following decision from Waikato District Council: Approve Decline

Give precise details, including any parts of the application you wish to have amended and the general nature of any conditions sought.

All

Number of additional sheets attached

I wish to be heard in support of my submission

Yes No

If others make a similar submission, I will consider presenting a joint case with them at the hearing

Yes No

Pursuant to section 100A of the Resource Management Act I request that you delegate your functions, powers and duties required to hear and decide the application to one or more hearings commissioners who are not members of the local authority

Yes No

If you make a request under section 100A of the Resource Management Act, you must do so no later than 5 working days after the close of submissions and you may be liable to meet or contribute to the costs of the hearings commissioner or commissioners.

Signature of submitter of person authorized to sign on behalf of the submitter

Date

15/8/22

A signature is not required if you make your submission by electronic means

Address

90 Hillside Heights Road

RD 1 Huntly

Postcode

3771

Email

vilafam@xtra.co.nz

Phone

07 8789317

Contact person's name (name and designation if applicable)

Paul Vitasovid

This is the person and the address to which all communications from the Council about the submission will be sent

Note to Submitter

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Consent_submissions@waikato.govt.nz

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My name is Paul Vitasovich and I am writing this submission to strongly oppose the resource consent application LUC0488/22 lodged by Gleeson Managed Fill Ltd for the establishment of a Managed Fill

Background

I was born in Huntly and have lived and worked here all of my life and in this submission I come from my experience and knowledge from working as a drilling rig operator for Winstones, the state coalmines for 21 years and where I held an opencast Mine managers certificate. I then went into general earthmoving for the last 23 years, all in the Huntly area.

Location

The proposed Managed fill areas named as Fill Area 2-4 in the application are all gullies that are situated on the hills above Riverview Road in Huntly. Fill site 2 attributes to the permanent stream that runs down the valley directly into Lake Puketirini Also the Huntly water treatment plant is 900 metres downstream from the river which will be the discharge points from fill sites 3 and 4.

I have grave concerns for Lake Puketirini and concerns about FA3.

Reasons

FA 3

I have grave concerns over the stability of this site if this proposal goes ahead, as it is where the mine tailings from the Weavers opencast mine were put. I have first hand knowledge of this as I worked on it's construction which took about 6 years to complete to it's finished state. Dump trucks carted the swamp matter, which included mud and vegetation, to the tip head. There was a D8 bulldozer present throughout the job which worked the tip head and bung development. The hard fill (fire clay) which constructed the retaining dam was taken up there by motor scrapers from the Weavers opencast pit (now Lake Puketirini), to develop the dump wall we only relied on the weight of the machine tyres to compact the clay layers. It was only in the last 24 months of finishing the construction that we had a compactor present on site.

In these times this structure would be considered sub standard which brings in the question the stability, so by doing any sort of work that involves disturbing it should not be undertaken.

To my knowledge this would be the biggest mine tailing removal in NZ ever to be taken off site from the mine and placed 2 1/2 km away of on private farm and maybe the only one. This is the magnitude we are talking about here.

I make reference to the drilling logs as contained in **“The Preliminary Site Investigation and Detailed Site Investigation Proposed Huntly Managed Fill – Fill Area 3” memo dated 31 August 2021. (Appendix 10.4)** This shows the Gaia bore logs have tested as far down as 25m and the EHS Support Excavations shows that they have tested as far down as 3m and because the tailing dam is 50+ metres deep you would have to test to the bottom to get an accurate reading. I think FA3 needs further investigation and the stability of this tailing dam and its contents needs to be core drilled right to the toe of Gleeson & O'Reilly properties

In my opinion the samples from the bore holes taken at this depth will not meet the criteria required for a Managed Fill.

It is also imperative that all parties need to be thorough and this is necessary given the huge enviromental impacts that would occur if this tailing dam were disturbed and if because insufficient testing wasn't undertaken would be devastating. It is just not worth the risk. There is no room for error.

The 3m holes BH1 BH2 and BH3 that were drilled with a hand auger found levels of boron above the proposed Managed fill water acceptance criteria. These 3m holes are only the hard cap we placed over the tailing mud swamp vegetation, so my concern here is that there has not been enough exploration on the whole site to ascertain the true status of these tailings and the containing dam wall. In my opinion this tailing dam needs to be core drilled in at least 10 sites and again right down to gleeson and oreillys and the dam bung tested for compaction and then and only then would it be considered for a managed fill site.

5.1 and 5.2 of the PSI & DSI was also of concern and the fact that contaminates could potentially be transported into the waikato river from sediment runoff during earthworks activities and the response to this raises red flags. What other precautions would be taken given the already heightened levels of elements being detected.

The conclusion and recommendation is not at all reassuring and not at all full proof and more safe guards are needed

Waikato River Authority

This application does not meet the above organisation vision and strategy for the Waikato River f Authority fundamental issue No 2

The above is not being met as the managed fill sites FA3 FA4 are going to discharge into the river approximately 900 up stream from Huntly water treatment plant . This affects the health and well being of the river and the people when something goes wrong and there is a high risk of this given the closeness of such an operation to the water courses and waterways

The Managed fill sites FA2 will discharge into the only creek that feeds into Lake Puketirini which is the only clean lake left in Huntly that hundreds of people enjoy swimming and other recreational activities then the water then goes to lake Waahi then to the river also degrading the water and aquatic life

We believe that this will happen and it will be a matter of time as problems can occur either because they were not foreseen, or because of lax management, or human error, or because of natural hazards like storms or earthquakes.

5.1 and 5.2 of the PSI & DSI was also of concern and the fact that contaminates could potentially be transported into the waikato river from sediment runoff during earthworks activities

r

FA2

As it has the only water course (Puketirini stream) that goes to Lake Puketirini, they are both at risk from the discharge that will come from the managed fill operation and will be at very high risk from contaminants entering into them when something goes wrong.

Rainfall - Currently in heavy rain any silt from FA2 runs into the Lake and the 'one in a hundred year weather event' doesn't exist anymore are not infrequent during storm events and it is more often in this current environment of climate change and global warming. the silt that comes down the hill also goes directly into a pristine lake (when it rains this happens now)

Sediment Retention Ponds - From my experience I believe the settling ponds that will be established will not be enough to contain the amount of water that will come from heavy downpours which have become more frequent over the last few years and there is a risk of total collapse. This would of course result in contaminants entering into the lake and over time would make the lake unusable .

The use of clay lining instead of synthetic lining for the sediment Retention ponds is a concern given the close proximity of water courses and waterways. This should be full proof and they should be going above and beyond above and more so here. Why not use both.

The risk to Lake Puketirini has been majorly downplayed by the applicant (who have only been in There is provision for clean/managed fill to be dumped at Hampton Downs, Mercer, Pokeno and Pukemiro. It is not something Huntly needs and it is not worth the risk to our lake.

David Bellamy OBE naturalist and environmental campaigner from the other side of the world visited Lake Puketirini in Huntly in 2007 to see what was achieved from an old mine site. He praised what he saw of this achievement. You must nurture and protect at any cost.

So in a nutshell lets **not** let Lake Puketirini bear the same fate of the lakes in the area We want to protect our waterways by not putting them at risk in the first place

A concern also was the fill site that was developed to the point of a roadway and tip head that was unconsented work had already caused a massive washout that occurred days after the illegal work was done. I estimate 80-90 ton washed down the hillside reaching the stream turning it bright orange which reached Lake Puketirini and I witnessed on my Sunday bike road. I have seen it this colour before. There was no silt mitigation at the site. This is an indication of the rain fall we get now.

Any discharge into the stream will be devastating to our lake with heavy metals boron arsenic Lake Puketirini is 62m deep and flows into lake waahi which is 2.5m deep so I can't see how the lake will cope and these contamination will stay in the lake forever

Finally I would to attend the hearing for a verbal submission.
Thank you

Corrections to submission dated 15 August 2022 from Paul Vitasovich

Reference to be included

<https://www.pce.parliament.nz/media/pdfs/Tailings.pdf>

Page 2. Correction

Page 2 of submission – first line should be

The 3m holes **HQHA1 HQHA2 HQHA3 HQHA4 HQHA5**

Page 3. Typo corrections – Misspelt word and missing word

Page 3 of submission – first section of second last paragraph should read

I witnessed on my Sunday bike **ride**. I have **not** seen it get this colour before



For internal use only

ECM Application # LUC0488/22

ECM

SUBMISSION # 010

CUSTOMER #

Submission form

(Form I3)

Submission on an application concerning resource consent that is subject to public notification by consent authority Sections 95A & 96 of the Resource Management Act 1991

SUBMISSIONS CLOSE AND MUST BE RECEIVED BY WAIKATO DISTRICT COUNCIL BY TUESDAY 16TH AUGUST 2022

To: Waikato District Council

Name of submitter (full name) NOVA DAWA MORLAND

This is a submission on an application from Gleeson Managed Fill Limited to establish and operate a managed fill disposal activity that imports material to deposit within identified gullies (Fill Areas 2-4) located north of an existing quarry within the same site. To undertake soil disturbance of a piece of land (within Fill Area 3) as per the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health at 310 Riverview Road HUNTLY

*I am am not a trade competitor for the purpose of Section 308B of the Resource Management Act 1991
* Select one

† I am am not # directly affected by an effect of the subject matter of the submission that
(a) adversely affects the environment; and
(b) does not relate to trade competition or the effects of trade competition

†Delete this paragraph if you are not a trade competitor
Select one

The specific parts of the application that my submission relates to are:

Give details (attach separate sheets if necessary):

All parts of it
.....
.....
.....
.....
.....
.....

I support oppose am neutral to the part/s named above.
Give details:

The reasons for my views are ASO ATTACHED
.....
.....
.....
.....
.....

I seek the following decision from Waikato District Council: Approve Decline

Give precise details, including any parts of the application you wish to have amended and the general nature of any conditions sought.

.....

Number of additional sheets attached 1

I wish to be heard in support of my submission Yes No

If others make a similar submission, I will consider presenting a joint case with them at the hearing Yes No

Pursuant to section 100A of the Resource Management Act I request that you delegate your functions, powers and duties required to hear and decide the application to one or more hearings commissioners who are not members of the local authority Yes No

If you make a request under section 100A of the Resource Management Act, you must do so no later than 5 working days after the close of submissions and you may be liable to meet or contribute to the costs of the hearings commissioner or commissioners.

Signature of submitter of person authorized to sign on behalf of the submitter

[Signature] Date 15-7-22
 A signature is not required if you make your submission by electronic means

Address 18 Hillsior Heights Rd Postcode 3771

Email rob.martens1@gmail.com Phone 027 326 1877

Contact person's name (name and designation if applicable)
 This is the person and the address to which all communications from the Council about the submission will be sent

Note to Submitter
 The closing date for serving submissions on the consent authority is the 20th working day after the date on which public or limited notification is given. If the application is subject to limited notification, the consent authority may adopt an earlier closing date for submissions once the consent authority receives responses from all affected persons
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Email Submission

Consent.submissions@waicd.govt.nz

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My name is Nola Morland and I own and occupy a property with my husband, Rex at 18 Hillside Heights Road, Huntly. Our property is just north of the proposed Managed Fill Area and we would be classed as a neighbour. I am writing this submission to oppose the resource application lodged by Gleeson Managed Fill Ltd for the establishment of a Managed Fill

My husband and I were born in Huntly and have lived and worked here all our lives.

The reasons for my opposition is the concern for the environment and the fact that a managed fill is being proposed so close our property and in Huntly at all.

It is not benefiting our community at all and the fact that it is in such close proximity to our lake, our river, the streams and tributaries that flow downhill into them is unthinkable. To put an operation such as this here doesn't make sense because of the nature of our location. We have many native birds flora and fauna which will be displaced and never be the same again.

It doesn't matter how they try to manage it and rehabilitate the area it will never be the same. Along with the usual effects e.g dust, smell, road usage, truck traffic and noise and what is in the managed fill material will impact us no matter is put in place.

It is a pity Huntly is once again in the firing line for these sort industries and doesn't end well. There are many reasons to oppose but this one that I feel strongly about
The environment



For internal use only

ECM Application # LUC0488/22

ECM

SUBMISSION # 011

CUSTOMER #

Submission form

(Form 13)

Submission on an application concerning resource consent that is subject to public notification by consent authority Sections 95A & 96 of the Resource Management Act 1991

SUBMISSIONS CLOSE AND MUST BE RECEIVED BY WAIKATO DISTRICT COUNCIL BY TUESDAY 16TH AUGUST 2022

To: Waikato District Council

Name of submitter (full name) Nicola Vitasand

This is a submission on an application from Gleeson Managed Fill Limited to establish and operate a managed fill disposal activity that imports material to deposit within identified gullies (Fill Areas 2-4) located north of an existing quarry within the same site. To undertake soil disturbance of a piece of land (within Fill Area 3) as per the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health at 310 Riverview Road HUNTLY

*I am am not a trade competitor for the purpose of Section 308B of the Resource Management Act 1991

* Select one

† I am am not # directly affected by an effect of the subject matter of the submission that
(a) adversely affects the environment; and
(b) does not relate to trade competition or the effects of trade competition

†Delete this paragraph if you are not a trade competitor

Select one

The specific parts of the application that my submission relates to are:

Give details (attach separate sheets if necessary):

All

I support oppose am neutral to the part/s named above.

Give details:

The reasons for my views are.....

as attached

I seek the following decision from Waikato District Council: Approve Decline

Give precise details, including any parts of the application you wish to have amended and the general nature of any conditions sought.

.....

Number of additional sheets attached

I wish to be heard in support of my submission

Yes No

If others make a similar submission, I will consider presenting a joint case with them at the hearing

Yes No

Pursuant to section 100A of the Resource Management Act I request that you delegate your functions, powers and duties required to hear and decide the application to one or more hearings commissioners who are not members of the local authority

Yes No

If you make a request under section 100A of the Resource Management Act, you must do so no later than 5 working days after the close of submissions and you may be liable to meet or contribute to the costs of the hearings commissioner or commissioners.

Signature of submitter of person authorized to sign on behalf of the submitter

Date

15/8/2022

A signature is not required if you make your submission by electronic means

Address 90 Hillside Heights Road Hunter Postcode 3771

Email nic.v@xtra.co.nz Phone 027 3797442

Contact person's name (name and designation if applicable)

This is the person and the address to which all communications from the Council about the submission will be sent

Note to Submitter

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If you are a trade competitor, your right to make a submission may be limited by the trade competition provisions in Part 11A of the Resource Management Act 1991

Written Submission

Postal Address Waikato District Council, Private Bag 544, Ngaruawahia 3742
 Telephone 0800 492 452

Email Submission

Consent.submissions@waidc.govt.nz

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I am writing this submission to oppose the resource consent application by Gleeson Managed Fill Ltd for an managed fill operation.

My name is Nicola Vitasovich and I am resident of Huntly and an owner/occupier of a neighbouring property north west of the proposed Managed Fill area. Paul Vitasovich is my husband who has also lodged a submission which I would like say I fully support his submission

This is our back yard, our community and this is where we live. We don't need the expert reports to tell us what our environment is like or that there is abundance of native wildlife including fish, lizards, kokopu, long tailed bats birds and numerous plant life that are also part of our community. They live in the trees and in the wetlands (whether they are man made, induced or natural) they dont care it is home.

We can and we do all enjoy this unique place. An area that has numerous watercourses that run to the only stream that runs to a pristine lake that is well used by many and we have a river and they are all connected and we are all connected. So why then are they trying to change the course of our environment change the course of our way of life which threaten the very things that are about our well being socially and culturally.

Already the wildlife has been shifted and landscape has changed before anything has even started so we know how this goes we know what can happen and we have seen what can happen.

Another big company who is not about the community not about the people not about the environment. This proposal is not something that is going to benefit to us. Who does benefit- the applicant and their clients. It is a risky operation that is not even needed here and to even contemplate putting this in such a valuable setting we have in Huntly, in harms way is mind boggling

There are numerous other affects that could be talked about, too many to put in this submission.

There are many other issues that I have studied and could go into detail but I decided to just keep it simple to give you an idea of what is at stake for us who live here and will be inpacted should this proposal goes ahead

I would like the opportunity to do a verbal submission at the hearing

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Give details:

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SUBMISSION FORM ATTACHMENT
Bryce and Carla Mounsey

Our submission relates to (cont) ...

14. Assessment of Effects – Air Discharge

14.3.2 The assessment identified approximately ten (10) residential properties that is located within a one-kilometre radius where people may be exposed to dust. The report states on page 8 that “the nearest sensitive receptor is located within the property boundary at 232 Riverview Road which is owned by Gleeson Quarry Ltd and is occupied by a worker at the quarry. Other residences are located 400 metres or more from the proposed area.” It is however unlikely that these receptors further than 400m from the activity will be affected as “impacts from even high levels of dust generation will be confined to 400 metres of the activities”.

We notice that there is a dust trail that exceeds 1.5km in either direction from the quarry on the road corridor currently. This is just the dust that can be seen. There have also been occasions when a dust cloud has been visible 2 km down the road coming from the quarry from the trucks entering and exiting the site, which travels over the river and onto properties situated on the east side opposite the quarry.

14.3.3 Duration “the duration of dust discharges would be limited to periods of strong winds during dry periods, or periods of unmitigated dust-generating activities at the site, and any effects will be limited to near the site activities”.

Again as residents that use this particular local road network, we dispute the above statement as again we note the dust on the road corridor and even travelling over the river in all weather conditions (other than wet weather periods, which then causes another whole set of issues).

14.3. The report writer states that “due to the above the potential adverse effects are less than minor”. The effects are not considered minor to the immediate residents nor those on the outer areas of the existing quarry or by those using the local road network daily, as their houses and vehicles are covered by dust on a daily basis. Some of the residents using this corridor are 1 – 2 km away and are impacted by the dust discharge from the quarries existing operations.

All the truck movements are creating a dust bath on the corridor, which affects residents and road users alike.

15. Assessment of Effects – Traffic

We disagree that an extra 12 trucks per hour will not have an impact on the road network. The existing volume of truck movements has an impact on this particular road corridor already, and an added volume will have an extra impact.

Trucks leaving the quarry take time to get to the allocated speed limit of the road, reducing the speed of traffic behind them. However many trucks do not adhere to the 50 or 70 km/hr designated speed limits coming north along Riverview Road heading to the quarry and travel at speeds above this. Extra trucks needing to meet their workload will add to this congestion.

15.1.7 mentions the quarry having an upgraded wheel wash that all trucks exiting the quarry will use. This cannot be working properly as Gleeson Cox have a water truck and sweeper washing and sweeping the dirt and sludge outside the quarry on Riverview Road, which to date has caused issues with users of this road having to stop as they have been in both lanes washing and/or sweeping,

causing road users to slow down significantly or even stop to allow the vehicles to move to the side of the road.

If there are extra trucks allowed to enter and exit the site, this will exacerbate this problem as it appears the wheel wash is either not used, or cannot cope with the existing truck volumes.

15.3 Traffic effects associated with importation of fill

We are concerned that with the extra trucks using this road corridor it will have extra wear and tear on a road that is already failing. Part of this particular road corridor has only been resealed in the past 6 months and is already showing signs of deterioration.

15.3.5 States that “this proposal would result in traffic effects that are less than minor”. There are already effects that are not minor (near misses with trucks failing to give way, pulling out onto the roadway in front of vehicles travelling north, lack of visibility when trucks are turning into the quarry from the north and other trucks exiting the quarry heading south for southbound traffic).

15.4 Capacity and Impact on roads and traffic

It can be a dangerous bottleneck of vehicles and with the added truck movements it will have a significant impact on the safe and efficient operation of the local road network.

Submission on an application concerning resource consent that is subject to public notification by consent authority *Sections 95A & 96 of the Resource Management Act 1991*

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PAGE ONE**SUBMISSIONS TO WAIKATO DISTRICT COUNCIL AND
WAIKATO REGIONAL COUNCIL
RE: GLEESON MANAGED LAND FILL. LIMITED**

The concerns I have:

MORE NOISE!!! Noise from the trucks and operation. The shaking of houses and buildings from the Trucks, also affecting peoples houses unable to sell because of the above.

MORE POLLUTION!!! Noise pollution, Air pollution, water pollution, and ground pollution.

MORE TRUCKS!!! Dirt, Diesel and truck fumes, speed and volume of traffic along the local road network. Damage to local roads that are used heavily by the trucks. WHO PAYS???

I see the consent for the Quarry had certain costs regarding truck operations, as this is an addition to the Quarry use will there be additional costs to Gleesons as the number of trucks operating will increase???. Yes, they pay Road users how much of that is spent on our local roads?? Very little I suspect.

WHAT GUARANTEE DOES GLEESON HAVE THAT THEY WILL RUN A SAFE ENVIRONMENT IF THIS PROCEEDS?? THEY HAVE ALREADY BROKEN THE RULES TWICE!!! CAN THEY BE TRUSTED??

OUR LOCAL WATERWAYS – WAIKATO RIVER AND OUR LOCAL LAKES – ESPECIALLY LAKE PUKETIRINI AND WAAHI LAKE. THEY NEED TO BE LOOKED AFTER FOR FUTURE GENERATIONS!!!

PAGE TWO**SUBMISSIONS TO WAIKATO DISTRICT COUNCIL AND
WAIKATO REGIONAL COUNCIL
RE: GLEESON MANAGED LAND FILL LIMITED - HUNTLY**

This operation will bring the following:

More Trucks: - Noise, dust and air pollution.

How many truck movements will there be on a daily basis on our local roads? There are already a large volume of Gleeson and Cox trucks travelling the local roads. Some of the local buildings and houses shake as the trucks go past. This devalues the houses and causes stress to the residents affected.

Is the speed limit of 70 kmh adhered to??

More dust and air pollution from the trucks as they go about their business. Will every truck be covered that are delivering fill to the rubbish dump to eliminate Huntly residents inhaling unsafe particles from these trucks? When you read some of the material that will be delivered it is an eye opener. Health Hazard to local residents.

With old landfills being washed away and the old rubbish being washed along our coastline what guarantee, or assurances can Gleeson Cox give to ensure this does NOT happen here? So called 100 year events seem to be happening more often with Global warming.

Reading about asbestos and other harmful chemicals being delivered to this site, is 2 metres deep enough and what will stop the arsenic etc from leaching into the soil? Will these fill areas be lined? What happens when the plastic wrapped around the asbestos finally breaks down??

PAGE THREE

-2-

Unfortunately, I do not have a lot of faith in Waikato District Council or Waikato Regional Council after Hampton Downs was allowed to be so near the river. Yes, it was lined but had a fire over many days. What checks were done on the liner after the fire???

We should be looking after Waikato River and restoring it after the abuse it has suffered over many decades and the river should be restored to being safe to swim in and drink from for future generations, Locals, Aucklanders and New Zealanders.

Observing overseas, water is not an endless source with many large overseas rivers almost drying up. The past years have shown how low the river can get.

Can we be sure this landfill will not affect the Waikato River???

Puke Coal landfill is a very bad joke with all sorts of unknown materials that have been delivered there and should not be used as an example of managed landfill.

The cost to the environment and the health of the locals in the future is unknown.

PAGE FOUR**SUBMISSIONS TO WAIKATO DISTRICT COUNCIL AND
WAIKATO REGIONAL COUNCIL****RE: GLEESON MANAGED LAND FILL LIMITED – HUNTLY**

What regulations will the Waikato District Council and the Waikato Regional Council put in place to ensure this (managed landfill) operation does not endanger the environment? I.e.: The river, the water table, noise pollution and air pollution and our lakes.

Will the site be inspected carefully and properly regularly ie monthly?

Will the results of the tests they say they will do ie: soil tests, water quality and air tests be sent to the Council to ensure the resource consent is being followed and it is safe for the environment?? Will there be a monthly report to the Council also a Public site where the locals can see the results and nothing is hidden???

Will the runoff affect Lake Puketirini? This is our only chance to save the lake. I hear there are now koi carp in the lake after the council wasted time replacing the flood gates from Waahi lake.

Is the water quality in Lake Puketirini being monitored for any run off from these works? Will the results of these tests be made available to the public and both Councils? TESTS should be monthly. It is easy to say the small streams that run into are minor and it is farming etc. This lake is enjoyed by the public and should be safe.

The areas filled in will be replanted with pine trees, another pollution (air – pine pollen for locals to endure – bad for asthmatics and hay fever) and wilding pine trees. If this activity is allowed, these areas should be replanted with native trees in keeping with the bush that has been destroyed and the Hakarimata range which is home to many native birds and wildlife instead of pine trees.

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Parts of the application my submission relates to

I am making a submission to oppose the granting of a resource consent for the discretionary activities as applied for in the above Gleeson & Cox resource consent application.

Hours of operation for truck movements to and from the entrance are

5:00am to 8:00pm Monday to Friday (with earlier closure of 6pm 1 May to 30 September), and

6:00am to 3:00pm Saturday

Although the current hours of operation are from 6am we have trucks travelling past our property earlier than this and waiting ready for the opening of the quarry. Early hours of opening would exacerbate this problem.

Rule 25.10.1 allows any activity that complies with all effects and building rules as a permitted activity, however the types of activities proposed is not permitted and include: • importation and disposal of managed fill (including asbestos contaminated soil and material), • deposit of overburden material associated with quarrying (extractive industry) and • potential sales of overburden material. The importation and disposal of managed fill as well as potential sales of overburden material is a discretionary activity and is one which I object to strongly. The main focus of this objection is the importation of managed fill and the type of fill being applied for. This fill material is mostly from outside the Waikato area and should not be transferred to our area to create a landfill which may have potentially damaging results on our environment.

Rule 25.25.1 allows any activity that complies with the earthworks conditions to be permitted. The proposal does however not comply with these standards as the earthworks involve: • cut and fill operations over 1000m³ within a site in a single calendar year • cut and fill operations over 1000m² • cut/batter faces greater than 3m in height • changes to natural waterflows/established drainage paths and • fill areas will not be revegetated within 12 months of commencement. Once again I object to this being granted as the excavation is in excess of that allowed and will create changes to the natural waterflows which are currently in place. This must have an effect on the surrounding areas and water ways of the quarry including Lake Puketerini. Especially in the case of something not quite going according to the original planning expectations or not being maintained sufficiently.

This proposal includes filling using imported managed fill (cleanfill). The volume/capacity of each Fill Area varies between 576,600 – 800,000m³, and the combined total managed fill volume will be an estimate of 2M m³. The anticipated fill volume will exceed the volume of 200m³ and a depth of 1m of and therefore is considered a discretionary activity. This will result in large changes to the environment and landscape which will effect vegetation and the surrounding landscape. The activity will also create more dust than at present which is already a problem for surrounding homes and residents.

Rule 25.43A.1 permits the clearance of indigenous vegetation or habitat of indigenous fauna if it is for specific purposes as outlined in (a)(i)-(viii) and (b). The purpose of the clearance of indigenous vegetation or habitat of indigenous fauna at the proposed fill areas are not included in Rule 25.43A.1. The proposed fill areas will result in the clearing and disturbance of indigenous vegetation for preparation and stabilisation purposes. There is some vegetation which is identified as potential significant habitat for bats (particularly Fill Area 4). Some of the vegetation to be cleared must therefore be regarded as potential significant habitat for indigenous fauna. In an age of

environmental protection the removal of indigenous vegetation to create a dump is inconceivable. The area of significance for bats should not be allowed to be removed as although there are ideas to rehome the bats there can be no guarantee that this would be successful

The deposition of any overburden from the adjacent quarry is an extractive activity and may occur within Fill Areas 3 and 4, which are outside the Aggregate Extraction Area. Volume and area will be exceeded, and works are within 10m of watercourses within the gullies. This is also a significant area for the environment and could create issues. The watercourses within the gullies may be affected by the deposition of overburden and any changes to the watercourse flow, extra sediment or unintentional contamination could have detrimental affects on the environment within the quarry and also within the external areas which are contacted through this.

Earthworks in a Significant Natural Area for purposes other than the maintenance of existing tracks, fences or drains. Clearance of all vegetation within FA's 2, 3 and 4 is proposed, and does not fall within the permitted standards as listed. This is not for maintenance but is for creating a new area which has a very small if any positive financial or social impact on the surrounding area.

Clearance of all vegetation within FA's 2, 3 and 4 is proposed, including Manuka, and removal is not to maintain productive pasture or for domestic firewood purposes. Once again this is not of any benefit to the surrounding residents or to the general Huntly area.

Reasons for my views

I am opposed to the granting of the resource consent as I believe there is very little or no benefit to the local community or people however there could be significant detrimental effects.

- 1) There will not be any extra employment positions created. The current trucks will be used and only a small number of extra trucks provided by outside contractors.
- 2) There will not be any extra financial expenditure in the local community. Gleeson and Cox is an Auckland company and the drivers will not travel through Huntly township to buy food or supplies.
- 3) There is a significant amount of dust created by the quarry currently and this will only be exaggerated. Living 4 minutes from the Quarry I am already plagued by this problem as my neighbours are.
- 4) The number of trucks on the road will be increased and this will exacerbate the problem of the condition of the roads which is already dangerous. The roading surface around the quarry entrance is pitted, the seal is breaking down, the shoulders are closed off by cones, the surface is slippery from dirt and slush.
- 5) The cleaning of the road creates a slow vehicle, often in the middle of the road, in a 100km speed limit area and this combined with the traffic flow of trucks make the area quite dangerous. More trucks and longer hours will increase this problem.
- 6) The removal of vegetation is an activity which should be frowned upon in today's environmentally friendly society. To take the risk of rehomeing bats and regenerating vegetation when the process always has the capacity to fail in some respect is definitely not a process which should be engaged in.
- 7) Creating sediment ponds and promising that this change and run off will not effect the surrounding area and in particular Waikato Awa and Lake Puketirini is a risk that should not be taken. Lake Puketirini is one of the few waterways which is still clear and can be used for swimming and water activities. This is a jewel in the crown for Huntly and makes the town proud. For a lower socio economic community these free activities should be protected at all costs. A risk to this for no return is not worth taking. For the sake of environmental justice the vegetation and waterways should be protected and sediment ponds should not be created.
- 8) It is also important to note the past record of Gleeson and Cox in relation to not abiding by conditions set by council. In June 2020 they undertook unconsented earth works draining a wetland and in December of the same year stockpiled coal on site. An illegal unauthorised and environmentally risky activity. Going by this past record it would be easy to assume the same attitude of ignoring consent conditions could be applied to any further consents granted in relation to the landfill.
- 9) Recently there have been additional cleaning and road safety management procedures in place at the quarry I have to wonder why this co-incides with the notification process for the current consent application.

Summary: The quarry is a consented activity as it stands but is also a problem in many respects for local residents. The dust, the road condition and high usage, the number of trucks and the noise are

all negative effects on locals which will only be aggravated by the addition of a land fill activity. This addition will bring extra issues such as the removal of native vegetation, the destruction of a bat habitation area, the potential for lake and river pollution, more trucks and noise and more dust. This however does not bring any extra benefits. There are no additional employment opportunities, the extra revenue is returned to and Auckland company, there will be no positive economic impact from additional spending within the area and importantly there will be no benefit to Waikato businesses as the landfill will be coming from the Auckland region. This fill should be kept within the area it is created and all impacts borne by those communities not by ours.













For internal use only

ECM Application # LUC0488/22

ECM

SUBMISSION # 015

CUSTOMER #

Submission form

(Form I3)

Submission on an application concerning resource consent that is subject to public notification by consent authority Sections 95A & 96 of the Resource Management Act 1991

SUBMISSIONS CLOSE AND MUST BE RECEIVED BY WAIKATO DISTRICT COUNCIL BY TUESDAY 16TH AUGUST 2022

To: Waikato District Council

Name of submitter (full name) Jessica Rix

This is a submission on an application from Gleeson Managed Fill Limited to establish and operate a managed fill disposal activity that imports material to deposit within identified gullies (Fill Areas 2-4) located north of an existing quarry within the same site. To undertake soil disturbance of a piece of land (within Fill Area 3) as per the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health at 310 Riverview Road HUNTLY

* I am am not a trade competitor for the purpose of Section 308B of the Resource Management Act 1991

* Select one

† I am am not # directly affected by an effect of the subject matter of the submission that

(a) adversely affects the environment; and

(b) does not relate to trade competition or the effects of trade competition

†Delete this paragraph if you are not a trade competitor

Select one

The specific parts of the application that my submission relates to are:

Give details (attach separate sheets if necessary):

I am opposing the application for resource consent for Managed fill in Huntly.

I do not oppose the use of fill area 3 and 4 for overburden use. I oppose the use of Fill Area 2 for any use.

The additional truck movements proposed and the hours in Winter.

I support oppose am neutral to the part/s named above.

Give details:

The reasons for my views are.....

7.3.1 There is already significant dust from the Huntly quarry and the Gleeson quarry.

9.2.3 The weight of these trucks will double. I question the need to operate for 12 hours a day Mon-Fri and also Saturday. If they are integral to worksites and Road works, how many of those work every weekend?.....

9.2.4 Relating to 6.1.4, this only makes sense if only fill from within the Waikato District is accepted.

9.5.4 Puke Coal Landfill is a cautionary tale of what happens when a company can't be trusted to do what they say. I believe Gleesons have seen an easy way to money and their motives are not altruistic.

I need to understand how the council plan to keep check on them..(12.2.5, 12.2.8, 12.3.1).....

16.2.3 'Retrospective consent is required for premature draining of wetland in FA3' the nerve of them.

I seek the following decision from Waikato District Council: Approve Decline

Give precise details, including any parts of the application you wish to have amended and the general nature of any conditions sought.

8.3.No timber to accepted. 9.2.3, 15.3.2.No truck movements on a Saturday. 9.2.4.Only fill from the Waikato to be accepted.

11.2.2 Only deposit into fill area. 11.2.5 Winter closure of fill areas June 1st - 31st of July.

12.2.8, 12.3.1 Removal of unacceptable Material within 48hrs of receiving lab results. 13.3.1, 21.2.11 No fill or overburden in Fill Area 2

15.1.2 No Subcontractors, only Gleeson trucks allowed. 15.2.5 All asbestos containing material to be wrapped

17.4.1 No additional truck movements. 19.3.1 A higher bond closer to \$1,000,000

Number of additional sheets attached 3 please consider the RC form attached in email additional sheets

I wish to be heard in support of my submission Yes No

If others make a similar submission, I will consider presenting a joint case with them at the hearing Yes No

Pursuant to section 100A of the Resource Management Act I request that you delegate your functions, powers and duties required to hear and decide the application to one or more hearings commissioners who are not members of the local authority Yes No

If you make a request under section 100A of the Resource Management Act, you must do so no later than 5 working days after the close of submissions and you may be liable to meet or contribute to the costs of the hearings commissioner or commissioners.

Signature of submitter of person authorized to sign on behalf of the submitter

..... Date 15/08/2022
A signature is not required if you make your submission by electronic means

Address 27 Hakanoa st, Huntly **Postcode** 3700

Email Jessica.maclarn@gmail.com **Phone**

Contact person's name (name and designation if applicable) Jessica Rix

This is the person and the address to which all communications from the Council about the submission will be sent

Note to Submitter

The closing date for serving submissions on the consent authority is the 20th working day after the date on which public or limited notification is given. If the application is subject to limited notification, the consent authority may adopt an earlier closing date for submissions once the consent authority receives responses from all affected persons

You must serve a copy of your submission on the applicant whose address for service is Paua Planning Ltd, Kate Madsen, 180 Bawden Road, RD 2, Albany 0792 or email kate@pauaplanning.co.nz as soon as reasonably practicable after you have served your submission to Waikato District Council

If you are a trade competitor, your right to make a submission may be limited by the trade competition provisions in Part 11A of the Resource Management Act 1991

Written Submission

Postal Address Waikato District Council, Private Bag 544, Ngaruawahia 3742

Telephone 0800 492 452

Email Submission

Consent.submissions@waidc.govt.nz

The information you have provided on this form is required so that your submission can be processed under the RMA, and your name and address will be publicly available. The information will be stored on a public register and held by the Council, and may also be made available to the public on the Council's website. In addition, any on-going communications between you and Council will be held at Council's offices and may also be accessed upon request by a third party. Access to this information is administered in accordance with the Local Government Official Information and Meetings Act 1987 and the Privacy Act 1993. If you have any concerns about this, please discuss with a Council Planner prior to lodging your submission. If you would like to request access to, or correction of your details, please contact the Council.

Submission form

Notice of submission under the Resource Management Act 1991 (pursuant to section 96) form 13

Notes

- A signature is not required if you are lodging your submission by electronic means.
- If you are making a submission to the Environmental Protection Agency (EPA) please use form 16B. Refer to the EPA website www.epa.govt.nz or call 0800 CALL EPA (22 55 372).
- The closing date for providing your submission to Waikato Regional Council is 20 working days after public notification or notice is served. You must also provide a copy of your submission to the applicant. This should be done as soon as possible.
- If you need any further help, please phone our Resource Use staff on **0800 800 402**.
- You can send your submission by:
 - Post: Waikato Regional Council, Private Bag 3038, Waikato Mail Centre, Hamilton 3240
 - Fax: 07 859 0998
 - Email: RCsubmissions@waikatoregion.govt.nz

Office use only

File no:
Consent no:

Section 1: Application details

Applicant name:

Gleeson Managed Fill Limited

Description of proposal:

(Briefly describe the type of consent, and the nature and location of the activity. If the proposal is for a change or cancellation of an existing consent condition, please detail the type and location of consent, the relevant condition and the proposed change. If the application is for a transfer of a water or discharge permit, provide details of the existing activity site and, if relevant, the part of the permit proposed to be transferred.)

Waikato Regional Council Consent Application No: APP144475

The specific parts of the application that this submission relates to are:

I am opposing the application for resource consent for Managed fill in Huntly

Section 2: Submitter details

We will use your email address as preferred address for service, unless you advise otherwise.

Name	Full name of submitter:
	Jessica Rix
	Contact person (include designation if applicable):
Postal address	Street/RD/PO Box/Private Bag: 27 Hakanoa st
	Suburb:
	Town/city: Huntly
	Postcode:
Residential address If different from postal address	Street:
	Suburb:
	Town/city:
	Postcode:
Email address	Jessica.maclarn@gmail.com
Phone number/s	Home: Business:
	Mobile: Fax:

Section 3: Submission on proposal

Please detail your submission below. Attach additional pages if necessary.

I/we (tick one option only):

- Support the application/s
- Oppose the application/s
- Neither support nor oppose the application/s (neutral submission)

My submission:

I am a born and bred resident of Huntly.

I have always been proud of my town and where I come from. I start with this because those who don't live here seem to have a very different idea of what our town actually is. Most of my life i have commuted to Hamilton for work and everytime I tell someone I'm from Huntly their reaction is always the same 'Oh, why don't you move to Hamilton?'. Like there is nothing here for anyone and those that are here don't care about the place. I believe Gleeson and Cox / Gleeson Managed Fill ltd are like anyone else who isn't from here. When your head office is out of town, the company will make decisions based on how the factors will affect them first, us second. They are simply not here to realise how it affects us or consider us.

Lake Puketirini has become an area that has had time and money invested in it and it is now an area that we locals can enjoy and also brings people from out of town to us. Not just through the Diving school, but swimmers who come to train there. It is a great asset to Huntly. It is great example of forward planning with the interests of our town in mind. It would be a terrible loss. I believe the lake needs to be protected by every stakeholder - Residents, Businesses and you the Local Government.

The increased traffic, notably on a Saturday has been felt. I believe a further increase would be detrimental to the liveability. Having lived near SH1 before and after the expressway opened, it is just as busy during the week and on a Saturday now. I have a view of the road and can see the number of Red Gleeson trucks travelling past. The only reprieve residents get from the noise and shudders from the trucks is on a Sunday. That is not enough.

Start how you intend to go on.

I do not trust Gleeson and Cox and have no reason to believe Gleeson Managed Fill ltd will run their operations any different. They have already shown disrespect and arrogance in starting earthworks without consent and destroying a wetland in the process. Storing coal on their site is another example of their poor decision making. It is only through luck that it happened in Summer and not Winter that real damage was not done. This is all before they have started the fill operation.

I worry about the condition of the Tainui bridge and our roads. The bridge has already had many hours closed for repairs. The amount of sustained damage they will endure from the additional weight of these trucks will be increased to an unsustainable level. I don't believe the amount of fees they pay through RUC's is enough to contribute to the amount of repairs that are going to be needed in the next 6 years.

I do not respect or appreciate the way the company has managed this application process. Branding us as angry and misinformed first of all is disrespectful. I understand their surprise at the amount of strong feeling we had towards the idea of a managed fill, but they could have actually learnt from that experience. Instead they used that one example as an excuse to not engage with us at all.

Huntly is full of people who care and can recognise when something is good for us and when it is not.

The reasons for my views are:

7.3.1 There is already significant dust from the Huntly quarry and the Gleeson quarry, adding to it will not help. If I don't use my car for a day (left under a carport closed in on two sides) it will be coated in a layer of dust.

8.2 I do not oppose the fill site 3 and 4 being used for overburden.

9.2.3 The weight of these trucks will double. I question the need to operate for 12 hours a day Mon-Fri and also Saturday. If they are integrall to worksites and Road works, how many of those work every weekend?

9.2.4 Relating to 6.1.4, this only makes sense if only fill from within the Waikato District is accepted.

9.5.4 Puke Coal Landfill is a cautionary tale of what happens when a company can't be trusted to do what they say. I believe Gleesons have seen an easy way to money and their motives are not altruistic.

I need to understand how the council plan to keep check on them. (12.2.5, 12.2.8, 12.3.1)

16.2.3 'Retrospective consent is required for premature draining of wetland in FA3' the nerve of them.

16.3.7 Was the remedial work to a high standard?

20.4.4 With 120 currently consented trucks movements you are contributing disproportionately to the condition of local roads.

20.5.1 They are disingenuous to say adequate efforts were not made to consult the community. If it hadn't been for our community page would not be aware of the: application notice, how to find the Glesson report or how to make this submission. I've read the full report submitted by Gleeson and I still have many questions and reservations.

21.6.5 Talk of Sponsorship and scholarships to appear like a caring and giving company are transparent and hollow. It still stands that they are not a local company and add little value to our town.

21.10.5, 21.2.11 If there is even a little chance of downstream to the lakes, then it should not be an option.

23.2.1 "Proposed" rainfall initiated treatment system. This area gets a large amount of rainfall in Winter/ Spring, to the point where mini waterfalls of water run from the hills on to Riverview road. Should it be compulsory?

I seek the following decision from the consent authority:

(Give precise details, including the parts of the application you wish to have amended and the general nature of any conditions sought.)

8.3 No timber to be included at all
 9.2.3, 15.3.2 No truck movements on a Saturday
 9.2.4 Only fill from the Waikato district is accepted.
 11.2.2 Only depositing directly into an open fill area
 11.2.5 Winter closure in the heaviest rainfall periods of June - end of July
 12.2.8, 12.3.1 Removal of unacceptable fill within 48hrs of receiving laboratory test results.
 13.3.1, 21.2.11 That no overburden or managed fill is put into Fill Area 2
 15.1.2 No subcontractors to be used. Only Gleeson & Cox trucks to be used.
 15.2.5 All asbestos containing material be transported wrapped
 17.4.1 No additional truck movements consented
 19.3.1 A higher bond closer to \$1,000,000

Please tick either yes or no to the following options:

I/we wish to be heard in support of this submission

Yes No

I/we will consider presenting a joint case at a hearing if others make a similar submission

Yes No



Signature of submitter: _____

Date: 15/08/22

(or person authorised to sign on behalf of submitter)

The information you have provided on this form will be stored on a public register and held by the council. The details (including your name and submission contents) may also be made available to the public on the council's website or on request, with your contact details removed. These details are collected to inform the general public and community groups about all consent applications which have been received by the council. If you would like to request access to, or correction of your details, please contact the council.

Submission on an application concerning resource consent that is subject to public notification by consent authority *Sections 95A & 96 of the Resource Management Act 1991*

SUBMISSIONS CLOSE AND MUST BE RECEIVED BY WAIKATO DISTRICT COUNCIL BY TUESDAY 16TH AUGUST 2022

To: Waikato District Council

Name of submitter (full name)

This is a submission on an application from Gleeson Managed Fill Limited to establish and operate a managed fill disposal activity that imports material to deposit within identified gullies (Fill Areas 2-4) located north of an existing quarry within the same site. To undertake soil disturbance of a piece of land (within Fill Area 3) as per the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health at 310 Riverview Road HUNTLY

*I am am not a trade competitor for the purpose of Section 308B of the Resource Management Act 1991

* Select one

† I am am not # directly affected by an effect of the subject matter of the submission that

- (a) adversely affects the environment; and
- (b) does not relate to trade competition or the effects of trade competition

†Delete this paragraph if you are not a trade competitor

Select one

The specific parts of the application that my submission relates to are:

Give details (attach separate sheets if necessary):

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I support oppose am neutral to the part/s named above.

Give details:

The reasons for my views are.....

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I seek the following decision from Waikato District Council: Approve Decline

Give precise details, including any parts of the application you wish to have amended and the general nature of any conditions sought.

.....
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.....

Number of additional sheets attached

I wish to be heard in support of my submission Yes No

If others make a similar submission, I will consider presenting a joint case with them at the hearing Yes No

Pursuant to section 100A of the Resource Management Act I request that you delegate your functions, powers and duties required to hear and decide the application to one or more hearings commissioners who are not members of the local authority Yes No

If you make a request under section 100A of the Resource Management Act, you must do so no later than 5 working days after the close of submissions and you may be liable to meet or contribute to the costs of the hearings commissioner or commissioners.

Signature of submitter of person authorized to sign on behalf of the submitter

..... Date

A signature is not required if you make your submission by electronic means

Address Postcode.....

Email Phone.....

Contact person's name (name and designation if applicable)

This is the person and the address to which all communications from the Council about the submission will be sent

Note to Submitter

The closing date for serving submissions on the consent authority is the 20th working day after the date on which public or limited notification is given. If the application is subject to limited notification, the consent authority may adopt an earlier closing date for submissions once the consent authority receives responses from all affected persons

You must serve a copy of your submission on the applicant whose address for service is Paua Planning Ltd, Kate Madsen, 180 Bawden Road, RD 2, Albany 0792 or email kate@pauaplanning.co.nz as soon as reasonably practicable after you have served your submission to Waikato District Council

If you are a trade competitor, your right to make a submission may be limited by the trade competition provisions in Part 11A of the Resource Management Act 1991

Written Submission

Postal Address Waikato District Council, Private Bag 544, Ngaruawahia 3742
Telephone 0800 492 452

Email Submission

Consent.submissions@waidc.govt.nz

The information you have provided on this form is required so that your submission can be processed under the RMA, and your name and address will be publicly available. The information will be stored on a public register and held by the Council, and may also be made available to the public on the Council's website. In addition, any on-going communications between you and Council will be held at Council's offices and may also be accessed upon request by a third party. Access to this information is administered in accordance with the Local Government Official Information and Meetings Act 1987 and the Privacy Act 1993. If you have any concerns about this, please discuss with a Council Planner prior to lodging your submission. If you would like to request access to, or correction of your details, please contact the Council.

We write to make our submission on the Gleeson and Cox proposal to tip waste into the land above Lake Puketirini.

Lake Puketirini is a vital community asset, managed by Waikato District Council on behalf of the community. Puketirini is the last clean, clear water lake left in Huntly, and is used by a wide range of groups: swimming clubs, Waka Ama, dive school, dog walkers and summer swimming for families.

Any degradation of the property is to be avoided. The lake will be with the community long after Gleeson and Cox finish their operations here. We believe the needs of the community, in the long term, need to take precedence over the short term goals of Gleeson and Cox.

The good faith of Gleeson and Cox is questionable at best. They have demonstrated their lack of respect for consent processes on several occasions. Their Paua Planning report (Rev04) disingenuously misrepresents the local community, and the facts of the case. They have already drained a wetland, and dispersed a colony of herons. There was a breach of materials management protocol, which was resolved only on prompting by the council, following reporting by the local community. There has been silt runoff from the site that has ended up in the lake, following winter storms.

The water quality of Lake Puketirini should be protected, for the community now and in the future. Gleeson and Cox's proposal does not guarantee this. Their track record suggests they need close supervision to ensure compliance with standards. To keep the site safe would demand regular independent monitoring of working practices at the site and testing of water output at points where water from the site runs into the lake. As a guarantee of water quality, a bond of a realistic amount for restoration of the lake following contamination should be agreed before consent is granted.





017

Submission on an application concerning resource consent that is subject to public notification by consent authority *Sections 95A & 96 of the Resource Management Act 1991*

SUBMISSIONS CLOSE AND MUST BE RECEIVED BY WAIKATO DISTRICT COUNCIL BY TUESDAY 16TH AUGUST 2022

To: Waikato District Council

Name of submitter (full name)

This is a submission on an application from Gleeson Managed Fill Limited to establish and operate a managed fill disposal activity that imports material to deposit within identified gullies (Fill Areas 2-4) located north of an existing quarry within the same site. To undertake soil disturbance of a piece of land (within Fill Area 3) as per the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health at 310 Riverview Road HUNTLY

*I am am not a trade competitor for the purpose of Section 308B of the Resource Management Act 1991

* Select one

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- (b) does not relate to trade competition or the effects of trade competition

†Delete this paragraph if you are not a trade competitor

Select one

The specific parts of the application that my submission relates to are:

Give details (attach separate sheets if necessary):

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.....

I support oppose am neutral to the part/s named above.

Give details:

The reasons for my views are.....

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I seek the following decision from Waikato District Council: Approve Decline

Give precise details, including any parts of the application you wish to have amended and the general nature of any conditions sought.

.....

.....

.....

.....

.....

Number of additional sheets attached

I wish to be heard in support of my submission Yes No

If others make a similar submission, I will consider presenting a joint case with them at the hearing Yes No

Pursuant to section 100A of the Resource Management Act I request that you delegate your functions, powers and duties required to hear and decide the application to one or more hearings commissioners who are not members of the local authority Yes No

If you make a request under section 100A of the Resource Management Act, you must do so no later than 5 working days after the close of submissions and you may be liable to meet or contribute to the costs of the hearings commissioner or commissioners.

Signature of submitter of person authorized to sign on behalf of the submitter

..... Date

A signature is not required if you make your submission by electronic means

Address Postcode.....

Email Phone.....

Contact person's name (name and designation if applicable)

This is the person and the address to which all communications from the Council about the submission will be sent

Note to Submitter

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Written Submission

Postal Address Waikato District Council, Private Bag 544, Ngaruawahia 3742
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Email Submission

Consent.submissions@waidc.govt.nz

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Section 3: Submission on proposal

Please detail your submission below. Attach additional pages if necessary.

I/we (tick one option only):

- Support the application/s
- Oppose the application/s
- Neither support nor oppose the application/s (neutral submission)

My submission:

The reasons for my views are:

I seek the following decision from the consent authority:

(Give precise details, including the parts of the application you wish to have amended and the general nature of any conditions sought.)

Please tick either yes or no to the following options:

I/we wish to be heard in support of this submission

Yes No

I/we will consider presenting a joint case at a hearing if others make a similar submission

Yes No

Signature of submitter: _____ Date: _____
(or person authorised to sign on behalf of submitter)

The information you have provided on this form will be stored on a public register and held by the council. The details (including your name and submission contents) may also be made available to the public on the council's website or on request, with your contact details removed. These details are collected to inform the general public and community groups about all consent applications which have been received by the council. If you would like to request access to, or correction of your details, please contact the council.



Submission form

(Form 13)

For internal use only

ECM Application # LUC0488/22

ECM

SUBMISSION # **018**

CUSTOMER #

Submission on an application concerning resource consent that is subject to public notification by consent authority Sections 95A & 96 of the Resource Management Act 1991

SUBMISSIONS CLOSE AND MUST BE RECEIVED BY WAIKATO DISTRICT COUNCIL BY TUESDAY 16TH AUGUST 2022

To: Waikato District Council

Name of submitter (full name) Emily Joy Thomas

This is a submission on an application from Gleeson Managed Fill Limited to establish and operate a managed fill disposal activity that imports material to deposit within identified gullies (Fill Areas 2-4) located north of an existing quarry within the same site. To undertake soil disturbance of a piece of land (within Fill Area 3) as per the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health at 310 Riverview Road HUNTLY

*I am am not a trade competitor for the purpose of Section 308B of the Resource Management Act 1991

* Select one

† I am am not # directly affected by an effect of the subject matter of the submission that

(a) adversely affects the environment; and

(b) does not relate to trade competition or the effects of trade competition

†Delete this paragraph if you are not a trade competitor

Select one

The specific parts of the application that my submission relates to are:

Give details (attach separate sheets if necessary):

All of it

I support oppose am neutral to the part/s named above.

Give details:

The reasons for my views are the environmental impact that

you CANNOT predict

- The disrespect Gleeson Cox has shown by not communicating with its number 7 neighbouring property - 95A Hillside Heights Road
- why would anyone want a company with bad morals + respect running a land fill

I seek the following decision from Waikato District Council: Approve Decline

Give precise details, including any parts of the application you wish to have amended and the general nature of any conditions sought.

no amendments, just do the right thing + decline this application for the good of Hurlly and what we have. Lake Puketirini would be directly affected - and no one can say otherwise. Water runs... -likelihoods will be affected - if not already...

Number of additional sheets attached

I wish to be heard in support of my submission Yes No

If others make a similar submission, I will consider presenting a joint case with them at the hearing Yes No

Pursuant to section 100A of the Resource Management Act I request that you delegate your functions, powers and duties required to hear and decide the application to one or more hearings commissioners who are not members of the local authority Yes No

If you make a request under section 100A of the Resource Management Act, you must do so no later than 5 working days after the close of submissions and you may be liable to meet or contribute to the costs of the hearings commissioner or commissioners.

Signature of submitter of person authorized to sign on behalf of the submitter Date *15/08/23*

A signature is not required if you make your submission by electronic means

Address *42B Mahuta Station Drive* Postcode *3771*

Email *emilyjay.thomas1002@gmail.com* Phone *0211373183*

Contact person's name (name and designation if applicable) *Emily Thomas* This is the person and the address to which all communications from the Council about the submission will be sent

Note to Submitter

The closing date for serving submissions on the consent authority is the 20th working day after the date on which public or limited notification is given. If the application is subject to limited notification, the consent authority may adopt an earlier closing date for submissions once the consent authority receives responses from all affected persons

You must serve a copy of your submission on the applicant whose address for service is Paua Planning Ltd, Kate Madsen, 180 Bawden Road, RD 2, Albany 0792 or email kate@pauaplanning.co.nz as soon as reasonably practicable after you have served your submission to Waikato District Council

If you are a trade competitor, your right to make a submission may be limited by the trade competition provisions in Part 11A of the Resource Management Act 1991

Written Submission

Postal Address Waikato District Council, Private Bag 544, Ngaruawahia 3742
Telephone 0800 492 452

Email Submission

Consent.submissions@waide.govt.nz

The information you have provided on this form is required so that your submission can be processed under the RMA, and your name and address will be publicly available. The information will be stored on a public register and held by the Council, and may also be made available to the public on the Council's website. In addition, any on-going communications between you and Council will be held at Council's offices and may also be accessed upon request by a third party. Access to this information is administered in accordance with the Local Government Official Information and Meetings Act 1987 and the Privacy Act 1993. If you have any concerns about this, please discuss with a Council Planner prior to lodging your submission. If you would like to request access to, or correction of your details, please contact the Council.



For internal use only

ECM Application # LUC0488/22

ECM

SUBMISSION # 019

CUSTOMER #

Submission form (Form 13)

Submission on an application concerning resource consent that is subject to public notification by consent authority Sections 95A & 96 of the Resource Management Act 1991

SUBMISSIONS CLOSE AND MUST BE RECEIVED BY WAIKATO DISTRICT COUNCIL BY TUESDAY 16TH AUGUST 2022

To: Waikato District Council

Name of submitter (full name) Hine Lavinia and Donald Carmichael

This is a submission on an application from Gleeson Managed Fill Limited to establish and operate a managed fill disposal activity that imports material to deposit within identified gullies (Fill Areas 2-4) located north of an existing quarry within the same site. To undertake soil disturbance of a piece of land (within Fill Area 3) as per the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health at 310 Riverview Road HUNTLY

*I am [] am not [x] a trade competitor for the purpose of Section 308B of the Resource Management Act 1991
* Select one

† I am [x] am not [] # directly affected by an effect of the subject matter of the submission that
(a) adversely affects the environment; and
(b) does not relate to trade competition or the effects of trade competition

†Delete this paragraph if you are not a trade competitor
Select one

The specific parts of the application that my submission relates to are:
Give details (attach separate sheets if necessary):

The application in its entirety.

I [] support [x] oppose [] am neutral to the part/s named above.
Give details:

The reasons for my views are.....

Please see Appendix 1 attached.

I seek the following decision from Waikato District Council: Approve Decline

Give precise details, including any parts of the application you wish to have amended and the general nature of any conditions sought.

To decline the application based on the reasons in Appendix 1.

Number of additional sheets attached 7 sheets (13 pages)

I wish to be heard in support of my submission Yes No

If others make a similar submission, I will consider presenting a joint case with them at the hearing Yes No

Pursuant to section 100A of the Resource Management Act I request that you delegate your functions, powers and duties required to hear and decide the application to one or more hearings commissioners who are not members of the local authority Yes No

If you make a request under section 100A of the Resource Management Act, you must do so no later than 5 working days after the close of submissions and you may be liable to meet or contribute to the costs of the hearings commissioner or commissioners.

Signature of submitter of person authorized to sign on behalf of the submitter

[Handwritten Signature]

Date 12 August 2022

A signature is not required if you make your submission by electronic means

Address 45 Rotowaro Road, Huntly Postcode 3700

Email pauasmum@xtra.co.nz Phone 021 554 148

Contact person's name (name and designation if applicable) Hine

This is the person and the address to which all communications from the Council about the submission will be sent

Note to Submitter

The closing date for serving submissions on the consent authority is the 20th working day after the date on which public or limited notification is given. If the application is subject to limited notification, the consent authority may adopt an earlier closing date for submissions once the consent authority receives responses from all affected persons

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APPENDIX 1.**The reasons for our views are:**

1. We believe there has been a lack of engagement with mana whenua on their latest proposal.
2. This proposal is inconsistent with the Waikato Tainui Environmental Plan, in particular Chapter 6, Consultation and Engagement with Waikato Tainui – Te Koorero Tahī me Waikato- Tainui, pages 49 – 55 (please see attached).
3. Part 2 of the Resource Management Act 1991 (please see attached).
4. And the increased traffic this proposal will create.

Te Koorero Tahī me Waikato-Tainui

Consultation and Engagement with Waikato-Tainui

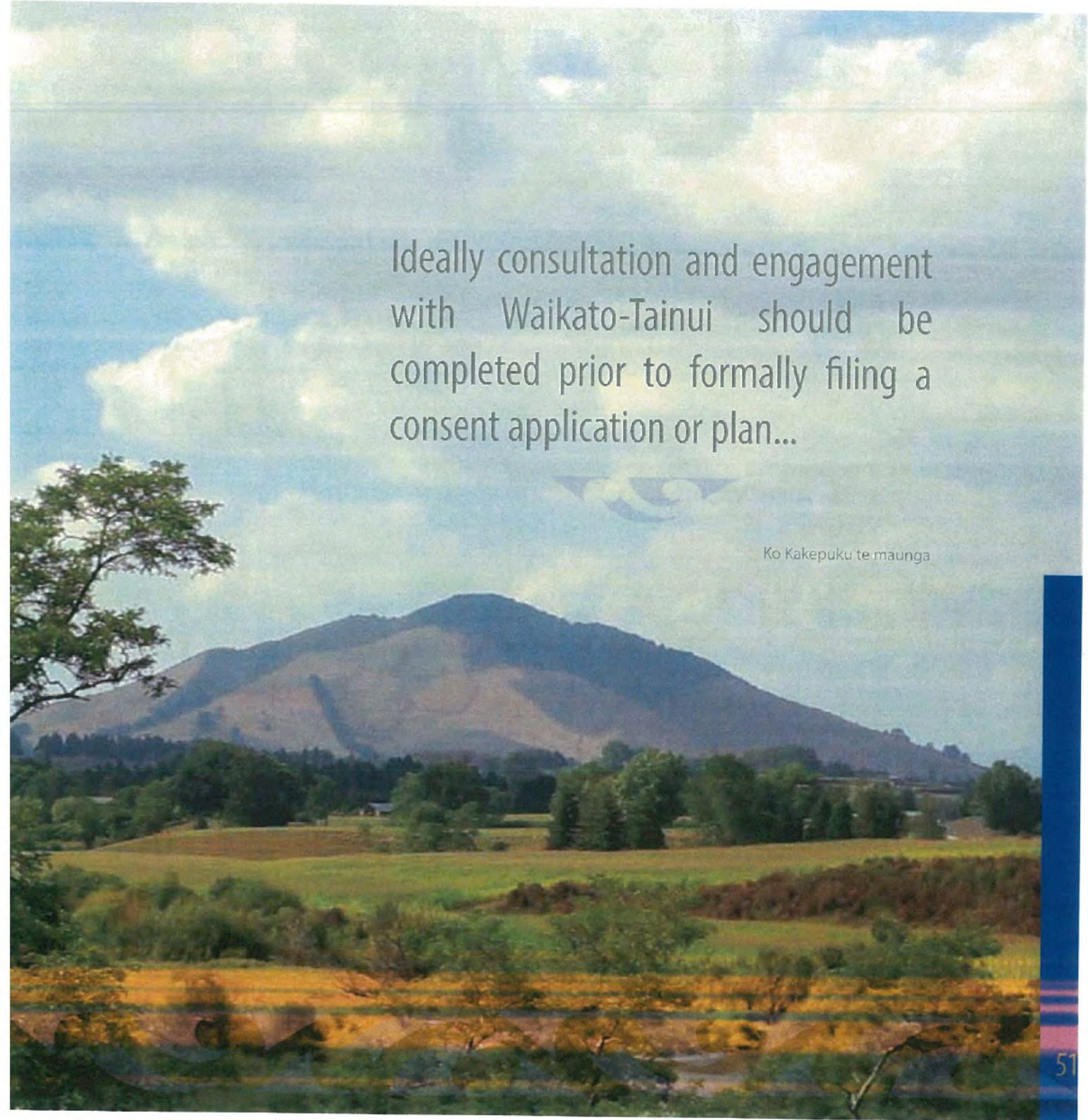
6.1 INTRODUCTION

- 6.1.1 It is important to ensure that resource uses and activities that impact on the environment in the Waikato-Tainui rohe give effect to the role of Waikato-Tainui as *kaitiaki*. While Waikato-Tainui acknowledges issues of commercial sensitivity, resource users, activity owners, local authorities, and central Government are encouraged to involve all stakeholders, particularly Waikato-Tainui, in an on-going and participatory design process for applications and other matters related to resource use and activities affecting the environment as early as practicable.
- 6.1.2 There are often inconsistent approaches by the statutory agencies, including local authorities, to the implementation of the Resource Management Act 1991 and to the identification of Waikato-Tainui, as an affected party under section 95F of the RMA, when decisions are made on public notification. Despite the prominence of taangata whenua issues in the RMA [in particular, Part 2 – sections 6(e), 6(f), 6(g), 7(a), and 8], resource consent processing, policy, and planning documents prepared under the RMA often do not sufficiently weight taangata whenua issues. Waikato-Tainui should be engaged in the preparation of all statutory and non-statutory documents, particularly where these documents have implications for resource use and development within the Waikato-Tainui rohe.
- 6.1.3 It is important that a relationship is formed between Waikato-Tainui, as kaitiaki, and the applicant, developer, and local authorities during the planning and initial stages of development, construction, operation, and through to completion. The key to this relationship is tikanga, transparency, good faith, patience and understanding. Consultation with Waikato-Tainui members is not achieved by merely having a discussion about resource consents, plans, and policies. How the concerns, interests and intentions put forward by Waikato-Tainui are considered should be reflected in any outcomes, plans, conditions and policies produced.

- 6.1.4 Early involvement of Waikato-Tainui in major projects may be accomplished by participation in pre-application meetings, through meetings with the project applicant and local authorities and through the review of draft or initial documents prepared by the applicant. Early involvement will often prevent later delays as potential problems can be eliminated and concerns about conflicting uses can be resolved earlier in the process. Ideally consultation and engagement with Waikato-Tainui should be completed prior to formally filing a consent application or plan.
- 6.1.5 Waikato-Tainui considers that pre-application consultation on a proposed resource use or activity is best practice to ensure that appropriate consideration is given to matters of importance to Waikato-Tainui. Waikato-Tainui also believes that undertaking a best practice consultation and engagement process will, in the longer run, be more beneficial than the cost of managing a poor process or not engaging in any process.
- 6.1.6 The type and complexity of the consultation and engagement process is dependent upon the context and magnitude of the proposed resource use or activity. Waikato-Tainui suggests that effective consultation and engagement is similar to any other research that is undertaken to inform a proposed resource use or activity. However, proceeding with a consultation or engagement process is often a choice that local authorities or applicants make. We note that, in the event of no pre-application consultation the applicant must demonstrate how they have taken into account the Plan as per the 'How to use the Plan' section.

A suggested consultation and engagement process follows.





Ideally consultation and engagement with Waikato-Tainui should be completed prior to formally filing a consent application or plan...

Ko Kakepuku te maunga

6.2 CONSULTATION AND ENGAGEMENT PROCESS

6.2.1 This section provides the phases of a consultation and engagement process. It is important to note that the process is scalable depending upon the magnitude of the matter to be discussed and who is likely to be involved in the process. Whaanau, marae, hapuu and other Waikato-Tainui entities may prefer their own consultation and engagement process to be utilised and this needs to be confirmed.

It is again stressed that early consultation and engagement is encouraged.

6.2.2 Intending or existing resource user or activity owner ('applicant') considers their use or activity against the relevant sections and chapters of this Plan.

6.2.3 To the degree that the applicant is able, the applicant prepares a draft preliminary report that provides a foundation document for consultation and engagement on the proposed or existing resource use or activity. The preliminary report can be prepared in collaboration with Waikato-Tainui (subject to any agreed process, costs, and timeframes).

The finalised preliminary report should:

- (a) Briefly describe the proposed or existing resource use or activity;
- (b) Summarise how the resource use or activity is consistent and aligns with the Plan;
- (c) Summarise how the resource use or activity is considered inconsistent or does not align with the Plan; and
- (d) Provide initial thoughts on what can be done to address inconsistencies or lack of alignment with the Plan.

6.2.4 It should be noted that, if the draft preliminary report is not prepared in collaboration with Waikato-Tainui, this report would not necessarily be supported by Waikato-Tainui as perspectives may differ on the degree of alignment that the proposed resource use or activity has with the Plan.

6.2.5 However, undertaking an agreed consultation and engagement process will enable the report contents to be amended and confirmed as part of an overall assessment.

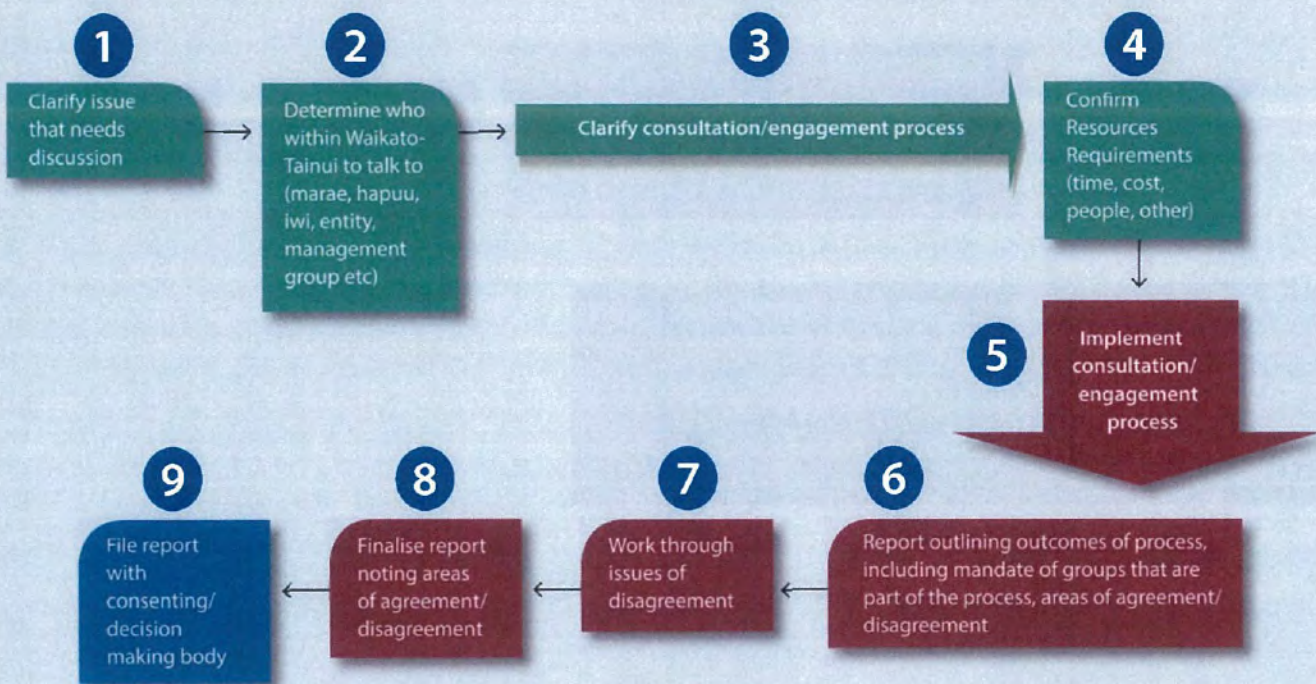
- 6.2.6 Waikato-Tainui receives the draft preliminary report and has reasonable time to undertake an initial assessment of the report, along with any other information reasonably requested.
- 6.2.7 Discussions with the applicant to confirm who within Waikato-Tainui is to be consulted, the process to consider the applicant's proposal, key milestones, deadlines, and costs associated with the process.
- 6.2.8 Once agreement is reached on process, costs, and timeframes, the consultation and engagement process is undertaken.
- 6.2.9 This may include:
- (a) Consultation and engagement taking place with respective Waikato-Tainui entities and other taangata whenua groups that may be affected by the matter being considered (individually and/or collectively as required).
 - (b) Waikato-Tainui appointed person(s) recording the minutes of the meeting and summarising the issues.
 - (c) Where necessary, an independent assessment or peer review of the information provided by the applicant. The independent assessment or peer review to be undertaken by a Waikato-Tainui approved organisation that understands the Waikato-Tainui viewpoint and any other technical/scientific issues.
- (d) Waikato-Tainui may request that the consultation/engagement process is independently facilitated, particularly where several hapuu/iwi claim an interest in the application, to ensure an independent outcome.
- (e) Ongoing hui may be held with the applicant, particularly in a complex matter, so that there is an iterative process of identifying and resolving issues as the assessment progresses.
- 6.2.10 Waikato-Tainui provides a report on consultation/engagement outcomes to the applicant.

- 6.2.9 Waikato-Tainui and applicant discuss and confirm the outcomes, work through any outstanding issues, or agree on a process to resolve outstanding issues arising from consultation/engagement. Outcomes may include but are not limited to:
- (a) Full support for the proposal;
 - (b) Conditional support for the proposal, subject to certain:
 - (i) Conditions being adopted;
 - (ii) Effects being managed a certain way;
 - (iii) Monitoring regimes being adopted;
 - (iv) Reporting being provided; and/or
 - (v) Waikato-Tainui ongoing involvement; or
 - (c) Rejection of the proposal, outlining the reasons for the rejection.
- 6.2.10 Applicant files application with Waikato-Tainui report attached. See flow chart on Page 55.

6.3 RESOURCING CONSULTATION AND ENGAGEMENT, COSTS

- 6.3.1 Waikato-Tainui has suitably qualified and/or experienced experts available to advise local authorities, applicants, and other resource users, and to sit on Local Authority Hearings Panels as Environmental Commissioners. In the past the necessity of having access to taangata whenua expertise compared to specialists of other disciplines has not been considered a priority. Waikato-Tainui is of the view that taangata whenua expertise needs to be considered and weighted in the same way as other subject matter or technical expertise.
- 6.3.2 Like any other expert or technical advice, the resourcing of input from Waikato-Tainui people needs to be considered. As a minimum, taangata whenua expertise should be resourced to the same degree and in the same manner as other technical or subject matter expertise. Waikato-Tainui is able to recommend taangata whenua experts for resource management matters. For the comfort of all parties, good project management disciplines should apply with personnel, costs, disbursements, outcomes, and timelines agreed between the parties prior to costs being incurred or work being undertaken.

6.4 Flow chart



Consultation and Engagement

- (c) any ship owned or operated by any State other than New Zealand, if the ship is being used by that State for wholly governmental (but not including commercial) purposes:
- (d) the master or crew of any warship, aircraft, or ship referred to in paragraphs (a) to (c).

Section 4A: inserted, on 20 August 1998, by section 3 of the Resource Management Amendment Act 1994 (1994 No 105).

Part 2

Purpose and principles

5 Purpose

- (1) The purpose of this Act is to promote the sustainable management of natural and physical resources.
- (2) In this Act, **sustainable management** means managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural well-being and for their health and safety while—
 - (a) sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and
 - (b) safeguarding the life-supporting capacity of air, water, soil, and ecosystems; and
 - (c) avoiding, remedying, or mitigating any adverse effects of activities on the environment.

6 Matters of national importance

In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall recognise and provide for the following matters of national importance:

- (a) the preservation of the natural character of the coastal environment (including the coastal marine area), wetlands, and lakes and rivers and their margins, and the protection of them from inappropriate subdivision, use, and development:
- (b) the protection of outstanding natural features and landscapes from inappropriate subdivision, use, and development:
- (c) the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna:
- (d) the maintenance and enhancement of public access to and along the coastal marine area, lakes, and rivers:

- (e) the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga:
- (f) the protection of historic heritage from inappropriate subdivision, use, and development:
- (g) the protection of protected customary rights:
- (h) the management of significant risks from natural hazards.

Section 6(f): inserted, on 1 August 2003, by section 4 of the Resource Management Amendment Act 2003 (2003 No 23).

Section 6(g): replaced, on 1 April 2011, by section 128 of the Marine and Coastal Area (Takutai Moana) Act 2011 (2011 No 3).

Section 6(h): inserted, on 19 April 2017, by section 6 of the Resource Legislation Amendment Act 2017 (2017 No 15).

7 Other matters

In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall have particular regard to—

- (a) kaitiakitanga:
 - (aa) the ethic of stewardship:
- (b) the efficient use and development of natural and physical resources:
- (ba) the efficiency of the end use of energy:
- (c) the maintenance and enhancement of amenity values:
- (d) intrinsic values of ecosystems:
- (e) *[Repealed]*
- (f) maintenance and enhancement of the quality of the environment:
- (g) any finite characteristics of natural and physical resources:
- (h) the protection of the habitat of trout and salmon:
- (i) the effects of climate change:
- (j) the benefits to be derived from the use and development of renewable energy.

Section 7(aa): inserted, on 17 December 1997, by section 3 of the Resource Management Amendment Act 1997 (1997 No 104).

Section 7(ba): inserted, on 2 March 2004, by section 5(1) of the Resource Management (Energy and Climate Change) Amendment Act 2004 (2004 No 2).

Section 7(e): repealed, on 1 August 2003, by section 5 of the Resource Management Amendment Act 2003 (2003 No 23).

Section 7(i): inserted, on 2 March 2004, by section 5(2) of the Resource Management (Energy and Climate Change) Amendment Act 2004 (2004 No 2).

Section 7(j): inserted, on 2 March 2004, by section 5(2) of the Resource Management (Energy and Climate Change) Amendment Act 2004 (2004 No 2).

8 Treaty of Waitangi

In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall take into account the principles of the Treaty of Waitangi (Te Tiriti o Waitangi).

Part 3**Duties and restrictions under this Act***Land***9 Restrictions on use of land**

- (1) No person may use land in a manner that contravenes a national environmental standard unless the use—
 - (a) is expressly allowed by a resource consent; or
 - (b) is allowed by section 10; or
 - (c) is an activity allowed by section 10A; or
 - (d) is an activity allowed by section 20A.
- (2) No person may use land in a manner that contravenes a regional rule unless the use—
 - (a) is expressly allowed by a resource consent; or
 - (b) is an activity allowed by section 20A.
- (3) No person may use land in a manner that contravenes a district rule unless the use—
 - (a) is expressly allowed by a resource consent; or
 - (b) is allowed by section 10; or
 - (c) is an activity allowed by section 10A.
- (4) No person may contravene section 176, 178, 193, or 194 unless the person obtains the prior written consent of the requiring authority or the heritage protection authority.
- (5) This section applies to overflying by aircraft only to the extent to which noise emission controls for airports have been prescribed by a national environmental standard or set by a territorial authority.
- (6) This section does not apply to use of the coastal marine area.

Section 9: replaced, on 1 October 2009, by section 7 of the Resource Management (Simplifying and Streamlining) Amendment Act 2009 (2009 No 31).

10 Certain existing uses in relation to land protected

- (1) Land may be used in a manner that contravenes a rule in a district plan or proposed district plan if—

020

Submission on an application concerning resource consent that is subject to public notification by consent authority *Sections 95A & 96 of the Resource Management Act 1991*

SUBMISSIONS CLOSE AND MUST BE RECEIVED BY WAIKATO DISTRICT COUNCIL BY TUESDAY 16TH AUGUST 2022

To: Waikato District Council

Name of submitter (full name)

This is a submission on an application from Gleeson Managed Fill Limited to establish and operate a managed fill disposal activity that imports material to deposit within identified gullies (Fill Areas 2-4) located north of an existing quarry within the same site. To undertake soil disturbance of a piece of land (within Fill Area 3) as per the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health at 310 Riverview Road HUNTLY

*I am am not a trade competitor for the purpose of Section 308B of the Resource Management Act 1991

* Select one

† I am am not # directly affected by an effect of the subject matter of the submission that

- (a) adversely affects the environment; and
- (b) does not relate to trade competition or the effects of trade competition

†Delete this paragraph if you are not a trade competitor

Select one

The specific parts of the application that my submission relates to are:

Give details (attach separate sheets if necessary):

.....

.....

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.....

I support oppose am neutral to the part/s named above.

Give details:

The reasons for my views are.....

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I seek the following decision from Waikato District Council: Approve Decline

Give precise details, including any parts of the application you wish to have amended and the general nature of any conditions sought.

.....

.....

.....

.....

.....

Number of additional sheets attached

I wish to be heard in support of my submission Yes No

If others make a similar submission, I will consider presenting a joint case with them at the hearing Yes No

Pursuant to section 100A of the Resource Management Act I request that you delegate your functions, powers and duties required to hear and decide the application to one or more hearings commissioners who are not members of the local authority Yes No

If you make a request under section 100A of the Resource Management Act, you must do so no later than 5 working days after the close of submissions and you may be liable to meet or contribute to the costs of the hearings commissioner or commissioners.

Signature of submitter of person authorized to sign on behalf of the submitter

..... **Date**

A signature is not required if you make your submission by electronic means

Address **Postcode**.....

Email **Phone**.....

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Huntly Community Board (HCB) submission
about Gleeson and Cox (G & C) managed fill
consent. Submission to Waikato District Council
(WDC) and Waikato Regional Council (WRC)
August 2022

The following document is broken into three main sections. The first is short and an introduction to HCB in how they support appropriate development in the town. The second section is about previous behaviour and trust around G & C and WDC. Past behaviour is the best predictor or future behaviour, thus discussion of past events is highly relevant. The third section is looking at specific issues

Since this document has grown in size, way beyond expectations a simple index is included to help navigate

HCB supported Smart Build	2
Issues of Trust	
WDC monitoring / Inspector concerns	3
G & C past behaviour	5
Specific Issues	
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Water	29
Levels of contaminants in managed fill	31
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Traffic effects – pedestrian impact	36
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As separate attachments are the following appendixes

Appendix One:	Newspaper article by Stuff, Company at centre of Huntly dump battle broke rules over stockpiled coal
Appendix Two:	Outline of possible illegal dumping
Appendix Three:	HCB Dust created by Gleeson and Cox trucks using council land as part of their business.
Appendix Four:	HCB memo to WRC Dust associated with Gleeson and Cox (G & C) quarry and trucking
Appendix Five:	NZ Medical Association publication, Erionite in Auckland bedrock and malignant mesothelioma: an emerging public and occupational health hazard?

1) HCB supported Smart Build

The board is not anti development. We actively support appropriate and beneficial development in our township. Case in point is the expansion of Smart Build. This is now a large operation on the southern approaches to the township and it is very obvious if you head south from Huntly. Although the expansion removed green space within the community turning what was a lifestyle block into industrial buildings, as well as demolishing homes and impacting local residents, the board supported this expansion both with written and verbal submissions in the process. The reasons that the board supported this was the following

- This is a local business, owned by someone who lives in the community. They are only a phone call away with any issues or concerns. He has a reputation to uphold in the community as an ethical business leader and to do the right thing. Living in the community in which your actions are judged / assessed means that you are consider the impacts into the community before taking action.
- The expansion provided jobs for locals. It was estimated that 60 new jobs would be created locally for locals. This is important, since Huntly does not have significant industry to employ people. Thus the creation of 60 new positions makes a massive difference in the township in terms of employment levels. Also the positions were in the trades, Huntly is a working class town thus there is alignment between the new positions and locals ability to fill them.
- The industry was non polluting. The building industry is not a 'dirty industry' in terms of residuals or pollution moving off site. It was raised in the hearing by the board, if memories serves correctly, about the long term impact of treated timber being used on site. NZ uses the heavy metals of copper, chromium and arsenic to create such a toxic environment that fungi will not grow. Thus working this timber on site, and having the sawdust flow into the holding ponds and eventually into the awa. Even this small level of contamination has been minimized. Firstly the work is done undercover, and thus sawdust shouldn't be washed via rainfall into storm water. It should be swept up regularly and thus not move off site. However even if it migrates to where rain can wash it into the storm water, it it should be trapped in the sediment / water retaining system. This system was over engineered for the site, and thus was able to cope with far more than modelled / expected. And this sedimentation in decades to come could be appropriately disposed off. So even this small amount of pollution had been thought through and minimized.

Given the cost- benefit equation this development provided far more benefits than costs to the community, thus we were happy to support it. We also support the Sleepyhead development, although due to the fast tracked nature of this development submissions have not open to the HCB.

However this managed fill proposal brings significant and impacts to the community with little to no benefit. Therefore the board strongly opposes the proposal. Each area of concern is addressed below.

2) Issues of trust

The consenting system works on trust. It is well known that neither council has the ability to proactively monitor the consents issued. Sure a visit might occur yearly, but that leaves 364 other days of the year that consent conditions can be ignored. We also have very serious concerns that the WDC staff member assigned to inspect G & C operation is competent and impartial.

Explained below is why we do not trust G & C nor WDC to keep to or enforce the consent conditions.

a) WDC inspector / monitoring concerns

Puke Coal managed fill. Nearby in Pukemore is Puke Coal. This has been a managed waste site for a number of years (does anyone know the date of operation). It was clear from very early on that waste was being dumped at this site which was not in the consent ie rubbish was being dumped. Locals attempted to engage WDC inspector to uncover the issues. However due to notice being given by WDC before entering onsite, the rubbish was hidden by the owner. It was observed that all the WDC inspector did was go into the office, get into the owners car and be driven about before leaving. Thus proper inspection did not happen. Most people in Huntly have a story about how they saw plastic waste going into the fill with their own eyes or know someone with did. The situation was so bad that locals started up a rumour that the inspector was taking 'brown paper bags' from the office and 'cash payments'. HCB does not support the propagation of rumour and heresy, so only repeats this as an example of how frustrated locals were with the system and lack of progress that they resorted to assuming that the system was corrupt.

The only reason that it is now accepted that rubbish went into the site, is the complete debarkle of the fire event which took place in 2020 (?)¹ which proved to both councils that the site was being used illegally as a dump. We are very pleased WRC has brought charges against the company and owner about this.

Therefore locals can conclude that if the company who operates a managed fill site wants to flaunt regulations, ignore conditions as long as they are 'smart' about it, they can.

Similar experiences have occurred with the G & C site. The same inspector as Puke Coal, who failed the public there, has failed the public at G & C. It should be pointed out that citizens of Huntly have struggled to engage with WDC, due to the town being a working class town and the council having exacting procedures to follow. For example the best way to raise a service request is via email. Raising via phone or face to face in library results in not obtaining a service request number, and a very high chance that the request will be lost in the system and also lacking ability to follow up. So email is the only way to securely raise issues. Huntly has a high level of internet poverty (ie lack of access to internet) and a very high illiteracy rate. "Māori are also more likely than non Māori to gain lower qualifications than their parents and already 49% of Māori do not have a parent that has completed at least NCEA level 2 or an equivalent qualification"² Thus 50% of Maori are effectively cut off from the service request system.

Therefore many of these examples lack a trackable service request history due to the inability of locals to create the paper trail.

Examples of this are the following

-
- 1 Please google this event, for further information, it was well covered in papers. Or either council can be contacted for their files regarding this.
 - 2 Cochrane, W., Erwin, C., Furness, J., Hedges, M., Masters-Awatere, B., Meehan, L., Ofe-Grant, B., Piercy-Cameron, G., Rua, M. (2020). *Adult literacy and numeracy in Aotearoa New Zealand: Context, conceptual issues and existing evidence*. NZ Work Research Institute. Auckland, NZ Pg 36

- WDC inability to supply what time trucks are allowed to enter the quarry. Residents regularly complain about the very early times trucks start to operate, and the ‘weird’ times that they ‘randomly’ appear. HCB has attempted on multiple occasions to find out from WDC what G & C are consented for. The latest request ([#39C57D] on May, resulted in no response from WDC / the inspector, even after being chased up by the WDC senior staff member allocated to the HCB to help the board. Previous attempts to find this information have been met with ‘its complicated / its to hard’.
- Being told by WDC inspector that filth on the road was normal for a quarry. At this time mud trails on the road were up to 8km from the quarry. And at the quarry entrance sludge on the road was cm’s high and completely covered the road service. HCB takes note that other quarries such as the J Swap quarry at Karapiro has no dust / filth on the road at all, nor does the Stevenson quarry at Ngaruawahia. Thus other quarries are able to undertake operations without causing the hazards that the inspector think is ‘normal’.
- The word on the street is that there is no point at all raising any issue regarding G & C as the inspector doesn’t care and is grumpy and abusive towards the public. Telling them things like ‘stop complaining’ and ‘nothing will change’ so unsurprisingly the general public do not raise issues with the council. Also since folks are not aware of which council is responsible for what, this adds to the confusion and lack of results when people raise issues.
- Inspectors abusive, bullying and intimidating behaviour at a meeting. The HCB chair attends the Huntly Power Station: Annual Consultative Group Meeting. G & C are the contractors who truck in the coal from Auckland port. In 2021 the chair asked for the illegal storing of coal at the G & C site to be discussed as part of this meeting (more information on this further below). This request was made well in advance of the meeting so that an informed discussion could occur. As part of this WDC inspector was also invited to attend. When this topic came up the inspector got very animated, very loud and started off by saying ‘you have not right to ask that question’ and used as much verbal and physical presence to attempt to shut down the conversation. This totally unprofessional behaviour that attempted to use verbal force (aka bullying) to make sure this issue was not discussed was adhorent, and the chair formally raised this with WDC which undertook an investigation. The outcome of this being an employment matter is of course no known. The fact that an inspector thinks that bullying is an acceptable way to deal with complaints, and thinks that shutting down a conversation is an appropriate way of dealing with an illegal activity is of very serious concern.
- WRC was invited to HCB meeting to discuss what issues feed into the regional council vs the local council. Since locals often get bounced between the organisations or complain to the wrong one. As part of this meeting the inspector was present. When it topic of dust from G & C came up, the WDC inspector thought that G & C had two dust monitoring sites. Turns out that G & C have none³. This is on one hand is an understandable error, but at the same time taken in context that this inspector has visited this site for years, dealt with dust complaints for significant length of time, seems to be in line with the general incompetence.
- When rumours of illegal earthworks was formally raised though the service request process, the WDC inspector visited the site. The day of the visit was heavily foggy, as the photo below shows. The inspector stated “At this stage I am satisfied from a monitoring perspective that there is nothing untoward taking place”⁴. Given that the WRC since formally invested these illegal earthworks and found G & C guilty, shows the standard of inspection. These illegal earthworks including draining and wetland and diverting a water course are discussed below.

3 Email: REQ186566 - Gleeson's Quarry - Riverview Road (Dust Concerns) Sent: Wed, May 18, 1:46 PM

4 Email from WDC titled FW: Emailing: 008, 009 Recent Complaints Gleeson Cox dated Jun 11, 2020, 7:35 AM



Photograph supplied of inspection, with fog impeding the ability to see

Thus we can conclude that WDC inspector is incompetent, and the current inspector and system is unable to detect illegal activity let alone done anything about it.

b) G & C past behaviour

The question is – has G & C shown any behaviour that would indicate that they act in an unscrupulous way, ignoring regulation. The answer to this is yes. And in both times it took members of the public to ‘snoop’ about to uncover the truth. Therefore it is highly likely there are other undiscovered issues that we are not aware of.

Diverting a watercourse, draining a wetland all without sediment controls. All of this is highly illegal and totally unethical. They altered a water course changing its watershed, diverting it from flowing into lake puketirini and changed it so it flowed into the Waikato awa. They attempted to drain the wetland through this drain, presumably so that they could claim it was not a wet land. They did all this work without sediment control, which is a basic precaution one takes when doing earthworks. We are assuming that other submitters will unpack this further, with photos etc. So will not dwell on it here. Suffice to say that this was only uncovered because of concerned citizens poking their nose about, and contacting the WRC. But an examples or these earthwork is shown. Where a new ditch have been created in a wetland, and no sediment control implemented.



Illegal ditch created to drain a wetland

WRC carried out an investigation on this issue, and G & C made to repair the damage they had done.

Storage of coal on site without consents. Genesis energy uses G & C to transport coal from Auckland to the power station in Huntly. For whatever reason G & C decided to store imported coal at their quarry site without the correct consents or paperwork. And deliberately deceived Genesis by stating they had the consents when they did not. See Appendix one for more information.

Again this was not uncovered by proactive council inspectors but by astute locals who noticed the coal entering the site. And raising this with WRC. Coal has significant environmental risks the most obvious being dust and storm water pollution. So any outside storage requires the appropriate consents and mitigation plans to deal with these environmental hazards. Non of which G & C had.

Possible dumping on site. Please see Appendix two. This material has not been documented and cannot be fully explored due to ill health. However this is a placeholder so that if documented evidence comes to light before the oral submissions it may be discussed.

Disregard for basic traffic management. It is accepted across the industry that to do any work on a road, requires traffic management plans and appropriate hazard minimization. G & C after years of inaction suddenly decided to clean up / keep clean the roading area outside their premises. Appearing to start regularly cleaning the week of 25th of July 2022 occurring to local residents who use the road. This is a good thing, what is not is the complete lack of traffic management, or any signage about slow vehicles on the road / blocking the road. This shows a systemic issue of not obeying the rules, and ignoring regulation when it suits the company. An example of this activity without traffic management is shown below. The sweeper and water tanker are at one point completely blocking the road to traffic, without any signage etc. Fortunate the vehicle which appeared seconds later was able to avoid the hazards, but if they had been travelling the speed limit (70km/hr) and not been vigilant, this could have easily resulted in an accident. It was also sated on local facebook page “yea my bro nearly hit them while coming thru” with regard to the lack of warning. And another person stated “Coming back that way from Ngaruawahia yesterday and come around the bend coming into Huntly and these guys where on both sides of the road coming towards the on coming traffic.. Freaked out didn't know where to go and No Road Signage or markers to indicate road works happening.” So clearly a dangerous situation for many a folk.



*Road sweeper occupying the northern lane, water tanker the southern lane. Thus blocking the road.
Approximatel y 12pm Tuesday 2nd August 2022*



Seconds later, (had continuous capture mode on) a vehicle travelling northward is captured caught in this slow traffic.

They obvious also had no silt control measures in place. A brief inspection showed that the water was pooling against a bank between the pull off area and the river. Later reviewing of the photograph taken, indicates that the water was then flowing along the bank and then down directly into the river at the low point where the bank was non existent. This makes sense as the area the water was flowing across is often used for truck parking, and thus would have some type of direct drain to the river, so that it did not pond. Of course this means any time it rains the silt will directly also flow into the river. Indicating that the care off the awa is only in lips service.



Photograph showing water laden with silt flowing directly into the awa

Storm water management, or lack thereof

Unsurprisingly for a company that allows water full of sediment to run directly into the river, the current storm water management on site is completely inadequate. Multiple townsfolk have brought up how this winter, and presumably every winter that has significant rainfall events, how water was running out of the quarry, across the road and direct into the river laden with silt and other quarry detritus. The comments from the townsfolk indicate that this was a significant level of water, being ankle deep or deeper. So something an environmental conscious organisation would have been proactive about managing.

Now turning attention from the actions of the company, to the actions of individuals within the company. Since personal especially at senior levels create the ethics, or lack of, that flow through the company.

Mr Gleeson behaviour. A companies owner attitude and philosophy will impact how that business grows and develops. It is insightful how Mr Gleeson operates. The HCB chair was invited to a hui at Waahi Whanui about the proposal by a local kaumātua, which the chair was honoured to attend. After this meeting concluded Mr Gleeson walking past the chair laid into the chair. Demanding in a bullying and intimidating way he not approach the council about anything and that he must talk directly with his staff first. And accused the chair of setting up his staff for a kangaroo court at a HCB meeting. This was the first ever personal interaction between Mr Gleeson and the chair and one has to wonder what the motive was to remove the council from the discussions.

Senior staff behaviour. This is fully discussed and unpacked further under the title community consultation. In brief a senior staff member stood up in a very well attended Huntly Community Board meeting (over 100 public in attendance), and spent considerable length of time saying ‘our word is our worth’ and ‘we do the right thing’. Then when the mayor suggested that G & C come down again to do a Q & A / discuss things with locals the senior manger agreed. Recorded in the minutes as “Gleeson & Cox would meet with the Huntly community to answer questions on the project. And A community liaison group would be formed to enable the Huntly community to

have access to Gleeson & Cox”⁵

However G & C reneged on this commitment. They did not meet with the community to answer question, did not create a community liaison group and never appeared in the community again. Thus showing what they say and what they do are two separate things.

Staff behaviour. During a level 4 lockdown the quarry was in operation. We are not sure why a quarry was an essential service. G & C were transporting coal from the Auckland port to the Huntly power station, to generate electricity. How though this resulted in congregation of trucks, drivers and activity at the quarry we are not sure. The point being that staff did not wear Covid Personal Protection Equipment (PPE), nor maintain social distancing while outside the quarry on public display. It was difficult to obtain footage of this, because all residents were under level 4 movement restrictions and unable to go out. Hence why this is the best photograph available. Showing drivers mingling, without PPE or social distancing. This was not only illegal but highly unethical given the Covid level 4 lockdown and the impact this could have on electricity generation, and older whanau



While NZ was in lvl 4 Covid lockdown, staff at G & C were not social distancing nor wearing PPE

So we can conclude that G & C has disregard for the law and doing the right thing. They will do things that are expedient for their business and increase the profitability of the operation. Therefore HCB does not trust that they will do the right thing, nor follow consents.

So the combination of WDC incompetence in holding the pre-existing managed fill, and existing quarry operations coupled with a company that shows scant regard for the law and doing things the right way, we would conclude that consents for a managed fill site should be declined.

Therefore we request that the consents for clean fill and managed fill be denied.

Mitigation

If the commissars do see fit to grant consent for clean and managed fill, against HCB wishes, we would request the following:

- Staff changes at WDC, so someone who has shown they are competent to thoroughly inspect and hold companies to account for breaches of the consent. Faith has been lost in the current inspector.
- A more proactive visitation and inspection schedule for both WRC and WDC. Word of mouth indicates that a yearly inspection is all that is typical for an operation this size. We would request quarterly inspections by both councils. And inspections when ever the public raise issues.
- Ability to inspect without announcement. If notice is give, people and companies have the time to go around and hide things, and ‘clean up their act’. This is human nature. Therefore

⁵ MINUTES of a meeting of the Huntly Community Board held in the Huntly College Hall, Bridge Street, Huntly on TUESDAY, 23 JUNE 2020 commencing at 6.00pm

the inspections need to be random, announced and at any time. Thus the inspector can see what is really happening, and not just what management want to present to the world.

-
- Regular information is promoted on how to report issues that the public see. Currently the public are confused as to who to contact when an issue is noticed.
- All information regarding inspections is placed into the public space for easy access. That is online so anyone at any time can access the full information.
- That a yearly presentation on the consents and data produced by the environmental monitoring be made to the HCB as well as the local tangata whenua group(s).

3) Specific Issues

a) Consultation

The documents provided imply that G & C have consulted with the community. This is not how the community sees this.

Firstly G & C were not proactive in connecting with the community. The Chair of HCB initiated contact with them in 2020⁶, inviting them to attend a HCB meeting. This was the first time that local residents (who had not had information dropped on in letter boxes) heard about a managed fill proposal.

The HCB invited the public to heard directly from the horses mouth at the 30th March board meeting. This is because as you are aware rumour and hearsay abound where there is an information vacuum. And HCB prides itself on being objective and informed. On the 30th of March a large number of locals attended, with estimates of over 100 folk. Those interested in staying informed wrote down their email addresses and 43 were collected.

Community Board operating procedures are set down by central government. One of these procedures is that once the board goes into the meeting that public / non board members are unable to speak to the meeting. Hence it is a meeting in a public space, rather than a public meeting. This makes consultation difficult. Since the company invited to engage can only speak at the audience watching the meeting. Hence the board wanted to maximize the chance that the public would obtain the information that they required to make an informed decision. Hence they asked on Huntly facebook groups for questions folks wanted answered. These were compiled into a nice A5 sheet which was sent to G & C in advance⁷, and also circulated in the meeting. This list is shown below:

Concerns from residents about proposed Clean / Managed fill

Short and long term environmental impacts

Leaching of sediment / heavy metals / contaminates into storm water and water ways / Puketirini / Waikato awa

Asbestos migrating into air, ground or surface water

Removal of trees / vegetation / native regrowth

Bats and other native species that reside in the gully

Monitoring, both of run off, but also of material arriving to fill location. How will this be done and how can residents raise issues. Will data be public,

Smell from marine sediments and acid sulphide soils

Visual impact on landscape

Impact on property values along truck route, next to fill and along line of site

Noise from operation early especially outside typical working hours and earlier / later than gates open

Dust from operation

Additional truck movements (48 full and 12 extra)

Damage to road fixed by ratepayers as trucks more damaging than cars. Including damage in areas such as roundabouts and rail crossings

Dust / debris dropping off trucks

Route through Huntly that the trucks will take and north / south split

Noise and vibration caused by full trucks

Current concerns about trucks / quarry, which will increase

Speed of trucks / not sticking to speed limit

Distracted driving

⁶ Email titled: Huntly Community Board meeting invite - 18th Feb sent Fri, Jan 31, 2020, 1:13 PM

⁷ Email titled: Summary of community concerns sent: Wed, Jun 17, 2020, 7:24 PM

Harris street especially around school times
 Light blindness for drives at night
 Level of dust / gunge / filth on road
 Current earthworks on site unrelated to quarry operation
 Traffic hazard of trucks crossing in/out of quarry in front of cars

Also what Iwi were consulted, what benefits does it bring to the town

In the public forum, questions were additionally asked: “The following questions were raised at the public forum on the Gleeson & Cox Proposed Huntly Clean & Managed Fill application:

- How will Gleeson & Cox protect the essence of Lake Puketirini?
- Can a site visit be held so that the community knows what is happening?
- Cleanliness of the road and quarry operations.
- Dust coming from the quarry – what measures are in place to mitigate this?
- Can the size of the trucks used, be increased?
- Visibility of the site to the residents and public.
- River Road corner, at the bottom of the hill – will Gleeson & Cox be carrying out work on this corner to ensure the safety of the residents?
- What is the basis of the need for the dump?”⁸

Therefore G & C and their consultants had a full list of the concerns of locals. They were allocated 10 minutes to talk, and after 20 minutes they were asked to stop. A small number of concerns were addressed. A significant amount of this time however was spent talking about how G & C do the right thing, keep their word, their word is their worth and other such management speak.

Therefore after the 20 minutes there was much frustration among locals that their questions had not been addressed and they were visibly annoyed by this. Especially when it was reiterated that they could not ask questions. Therefore “His Worship the Mayor suggested that Gleeson & Cox hold a separate question and answer workshop with the community”⁹. This was a very wise suggestion and when the G & C Chief Financial Officer who was presenting on behalf of G & C agreed to this it was an appropriate and helpful outcome.

The minutes went on to record “Gleeson & Cox would meet with the Huntly community to answer questions on the project. And A community liaison group would be formed to enable the Huntly community to have access to Gleeson & Cox”¹⁰

However G & C reneged on this. They did not meet to answer questions, nor did they set up a community liaison group. They answered the questions via email (these are the documents submitted online). Apart from the lack of integrity shown by saying one thing and doing another, is the demographics of Huntly. Sure the consultants and senior management of G & C have high literacy rates, and can easily engage with written material. However Huntly as already mentioned is a low socio-economic area. Thus sitting down to read material (in a small font no less) is problematic. Therefore to send written documents that are hard to read, and calling this consultation shows a complete lack of understanding of the community.

The minutes recorded that at the start of the HCB meeting that “No consultation had occurred to date.” and we would argue that nothing has changed. Still no meaningful consultation has occurred. Therefore we ask the commissioners to decline this application.

If the commissioners see fit, we would suggest that this process is paused until G & C undertake appropriate consultation with the community with a similar event to the sleepyhead information

⁸ MINUTES of a meeting of the Huntly Community Board held in the Huntly College Hall, Bridge Street, Huntly on TUESDAY, 23 JUNE 2020 commencing at 6.00pm

⁹ ibid

¹⁰ ibid

event. This is where sleepyhead hired a local hall and installed a number of posters relating to a relevant area / topic. Each topic had its own expert, which was typically a consultant. These folks could discuss with the public what things mean and how it impacts them. Thus the public could understand what is going on.

And once this consultation occurred and the public was fully informed then the public would be able to make wiser and more appropriate input into the process. And the process re-start.

Mitigation

We cannot see how this obvious lack of consultation can be mitigated against. However we are open to discussing this further in the verbal submission.

b) Dust

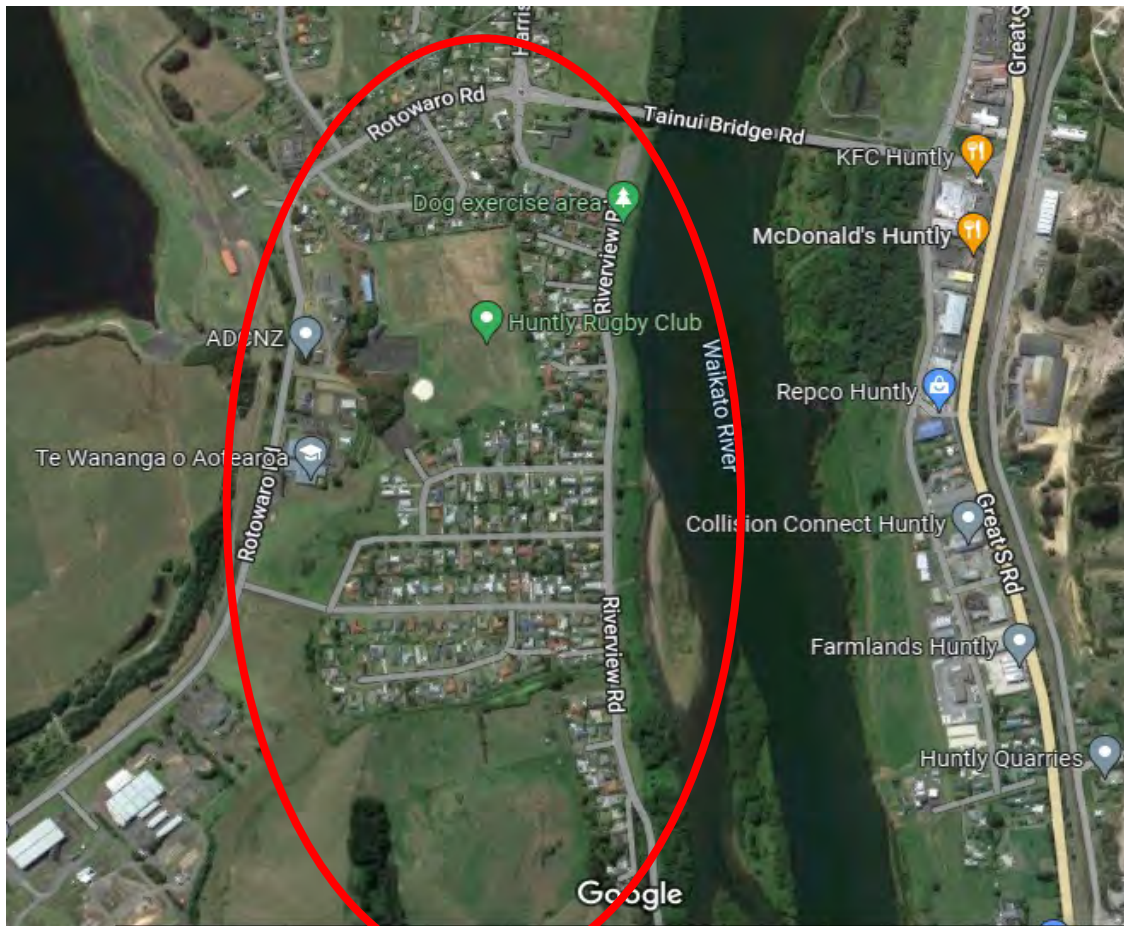


Photograph taken 21st December 2021 by local resident from Hakarimata road looking towards quarry and Riverview road. Huntly residents are just to the right out of frame. Clouds of dust can be seen leaving the quarry site.

There are currently significant issue with dust from the current operation. These have been formally raised in October 2020 and in May 2022. These reports are attached as Appendix three and four. Please take the time to read these reports, as in the interest of efficiency the information there will not be repeated.

They show how dust has been an ongoing problem for some time. It has taken until May 2022 for HCB to understand that WRC deals with dust complaints. Therefore dust issues have been going to the wrong council. And given that residents were told to suck it up, it is hardly surprising that formal complaints have not been forthcoming.

There is a section of Huntly which will be called Riverview suburb or Riverview area. This is the area of town that impacted most by the dust. This is shown in the map below and is a sizeable chunk of Huntly. Furthermore more development is occurring and has occurred since this photo was taken, with both infill housing and greenfield development.



Riverview suburb
Most impacted by dust

↓ To quarry

The dust has two sources. One is the quarry operations themselves within the G & C site and the other is the material trafficked onto and up the road. These are discussed separately below

Roadway dust source

The volume of material that leaves the migrates up the road system is massive. Some examples of current dust issues are shown over the page. These photos were taken on 2nd of August after a significant length of consistent and heavy rainfall. Thus the road has been 'washed' by the heavy rain and should be clean.



Example of dust and debris build up on Riverview ~1.5 km north of quarry. The dust trail was clearly visible until the roundabout 2.8?km away.



Both sides of the same section of road ~ 2.4km north of the quarry. These gutters have been recently cleaned on regularly cyclical cleaning routine. The gutter on the north bound section is already dirty with build up of dust and debris, which the southbound lane is much cleaner.



*Example of dust and crud build up. This is either side of a road marker ~ 0.9km North of quarry
One side completely non longer functioning as a marker!*

A resident stated of the hazard this dust in the road and markers causes “They need to clean the road side markers and the council should put the cats eyes back on the road as I was driving down there last night at about 8pm and a car coming towards me with there lights on as it's dark and I could not see the road lines or the dirty road side markers they should have to clean the road markers every day so people know where the side of the road is”.

It watching the heavy vehicle movements on this day, there were clear plumes of dust rising behind them as they travelled north. Unfortunately photographing a dust cloud is really challenging and clear images of these dust plumes were unable to be captured. Therefore it is just as important to consider the dust produced from the roading activities and the transport to and from the quarry site as it is from the managed fill activities. G & C mention nothing about these dust risks in their assessment of dust hazards and dust mitigation.

Quarry dust source



The sun being low in the sky enables the dust being produced by quarry operations to be seen



A different day, the dust is clearly visible from the old SH1 (Great South Road)

This source of dust impacting the township is harder to travel out and document / see with ones own eyes. This is because it depends on a combination of three factors, the weather, the operations inside the quarry being positions in the right spot to see the dust. Since it is hard to observe unless the sun is shining from behind or through the dust cloud, which then reflects the light. Thus it is not going to be easy to document these dust issues. However it has been captured by locals as shown above.

Residents in the area talk about how when the wind blows from a Southerly through to a Westerly direction, that they regularly see the dust coming up and over from the quarry. They have also mentioned that the dust seems to have increased in recent times. Which would be associated with increased quarry activity. A simplest assumption would be that the quarry sunk into the hills side thus appear as a deep amphitheatre would prevent the generated dust from migrating out of the quarry.

However this would be an incorrect assumption. This is because as air flows over an amphitheatre it sucks out the air that is in the enclosed space. Thus creating a vacuum and lifting up the air and entrapped particles. This is driven by the venturi effect, and is the reason that roofs blow off in storms, winged air planes can fly so has a real impact on design of industrial systems.

Another reason could be due to the increased dust producing areas outside the quarry operation, these operational areas would be associated with the managed fill site.

This could be due to the clearing of ridges lines to build haul roads, and other pinus radiata harvesting operations. A quick check of google maps with their 'satellite' imagery, shows a number of exposed dust producing areas, located up on the plateau and out of the quarry pit. It should be noted that google does not publish the dates for there google map imagery. Going off other known information in the map, the photographs are a number of years old, thus further dust / topsoil disturbance may well have taken place since these were taken. It it easy to see these areas on google maps as being a major source of dust for the residents north of this location, let alone a further expansion of the vegetation free areas.



Tracks and other vegetation free areas on the northern side of the property outside of the quarry pit



Major earthworks on the south-western side of the property. Showing very large areas of soil exposed to the effects of wind. Note structure in bottom left whose face is denuded of vegetation

Also wind flows do ‘funny things’. That is eddies, turbulence and non laminar air flow over a pit, can be directed to pick up dust and bring it out of a pit structure.

G & C have at least some of the equipment required to suppress dust. For example a water tanker with spray attachments, as shown below. Given this is not resulting in effective dust suppression, the conclusion is either the equipment is not being used enough or appropriately (ie it is a ‘dead cost’ to the company to have an employee suppressing dust and not being ‘productive’). Or that the equipment is not the correct type, or there isn’t enough ie more capital investment is required.



Water being applied as dust suppressant in Oct 2020

Either way, the end result is that locals suffer from the dust.

Wind rose analysis

The desktop analysis of wind done by Pattle Delamore Partners shows the dominate wind in Whatawhata / Ruakura being West with a Southerly Component (pg 12). This what is expected as weather systems move from the West to the East in NZ. However we are all aware that significant local effects occur due to topography and local terrain.

Is there any significant features in the landscape that may alter the predominate wind pattern? And do these create a noticeable effect. Locals living in and around the quarry say that there is often wind blowing in a from a more southerly direction. Thus the air moves up through the quarry area and up into the township. And that the road dust as it is thrown up by the trucks travels a similar path.

Is there anything in the landscape that would create this localised effect? The simple answer is yes range of tall hills (short mountains? We are not aware of what a definition of what makes a mountain range). A snapshot taken from the NZ topography maps is shown below. The quarry and proposed fill is highlighted with a red arrow. Directly West of this site over the awa is the Taupiri Range, highlighted in red oval. This range is significantly higher by 100-200 meters than the height of the proposed fill site. Thus it would be logical that the wind from the desktop study would be modified by the local landscape. Thus instead of being West with a Southerly component it is going to be South-West or even South, with a Westerly component.

Thus by not taking into account local topography in the desktop study there is a significant error introduced in the underlying assumptions. This is highly concerning as what other assumptions and errors are in the document which a person not educated in this area would not notice.



Quarry site and local topography showing Taupiri Range which has a significant impact on local metrological conditions.

Another basic assumption is that wind speed is not impacted by elevation. Anyone who has done any bush walking, tramping or outdoors activities knows that elevation has a massive impact on wind speed. The more the elevational the higher the wind speed. Also the impact of being on an exposed area, also massively increases the wind speed.

The proposed fill area is at ~100m elevation. Thus is going to have higher wind speeds than the low elevation records of Ruakura and Whatawhata. The photos we have seen of the fill area two where G & C have already built t they build their turning bay, and other infrastructure for the dumping face indicate to me that they are dumping in a very exposed location. We might point out that they using this area to dump wet dusty materials already. So not sure if any of this construction and use is consented, but we digress.

Thus the number of times / days with high wind speeds is going to be significantly higher than what is expected / estimated.

Given that the basic underlying assumptions of the desktop report are not correct. It is difficult to have faith that the rest of the report is of high quality.

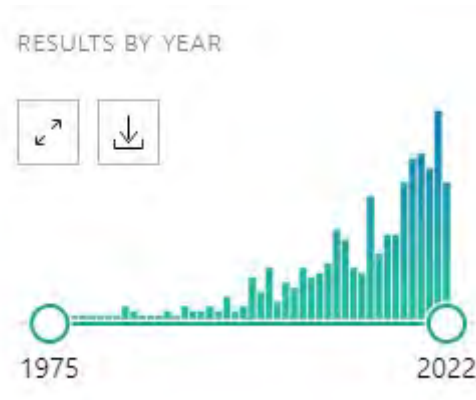
Impacts on locals

“The extraction of minerals from surface mines and quarries can produce significant fugitive dust emissions as a result of site activities such as blasting, road haulage, loading, crushing and stockpiling. If uncontrolled, these emissions can present serious environmental, health, safety and operational issues impacting both site personnel and the wider community.¹¹” So we would expect to see issues in the community from this dust. The following stories have been discussed before this consent application was open for comment:

- Public health nurse mentioned in public meeting that her clients in the Riverview suburb all became significantly healthier over lockdown when quarry operations stopped and truck traffic massively reduced. Then after lockdown ended and operations began her clients regressed back to their sicker selves. This is significant evidence that the dust from the quarry operations is having a massive effect into the community. Since there is clear cause and effect that remove the dust, health problems go. Reintroduce the dust, the health problems re-appear.
- Councillor has mentioned in a HCB meeting that the dust is so bad in his home in the suburb that within a few days of washing his car and storing it undercover, that dust is easily visible when running a finger over the surface of the vehicle. Thus showing how quickly the dust builds up.
- Families with young kids who have moved into the area from other parts of Huntly have reported that their children now have constant respiratory problems. They were healthy and ‘normal’ when they moved into the suburb. Yet even though they go to the school, and everything else is similar, the children have constant respiratory issues.

Science of dust and health

The role of dust inhalation in negative health outcomes is becoming more understood, with the medical research website, pubmed, showing that studies on the topic ‘impact dust inhalation’ increasing exponentially.



Number of medical articles about dust inhalation is increasing exponentially over time.

The purpose of this submission is not to prove that dust is a health hazard. That is a given that this is a well accepted fact that occupational dust exposure causes a range of health effects. For example this Site Safe NZ states “You might not realise it, but workers in the construction sector are 20 times more likely to die of exposure to harmful airborne substances than from a workplace accident.”¹²

However even though occupational exposure to dust is a known health hazard, it is a bit like smoking. Smoking was known to be a health issue decades before anything was done to protect non smokers from second hand smoke. This appears to be the same situation. Dust is a known health

11 S.A. Silvester, I.S. Lowndes, D.M. Hargreaves, A computational study of particulate emissions from an open pit quarry under neutral atmospheric conditions, Atmospheric Environment, Volume 43, Issue 40, 2009,

12 Dust downloaded from <https://www.sitesafe.org.nz/guides--resources/practical-safety-advice/dust/> on 1st of August 2022

hazard, yet adequate steps are not being taken right now to prevent Huntly residents from being exposed to it.

Particulate Matter (PM) is the scientific jargon for dust. There are two particle sizes PM 10 which is “inhalable particles, with diameters that are generally 10 micrometers and smaller” and PM2.5 which is “fine inhalable particles, with diameters that are generally 2.5 micrometers and smaller”.¹³ Hence PM10 and PM2.5 are important terms to be aware of in the discussion of dust. The reason that PM10 and PM2.5 is used is because the finer the dust the higher the risk. This is because the dust travels further into the lung system as the hairs and biological filters in place to filter out particles don’t capture the small dust as effectively or efficiently. This is a concern as transport dust has been shown to be high in PM2.5 materials. “re-suspension of roadside dust from movement of vehicles resulted in generation of relatively higher fraction of finer dust (PM2.5)” and concluded that “population residing downwind of the mining area is particularly vulnerable to the pulmonary effects due to inhalation of dust.”¹⁴

Living near dust activities reduces life expectancy, with a population study using estimates of pollution exposure finding that the long term average of various pollutants including PM2.5 was related to mortality¹⁵ – that is the higher the PM2.5 the higher the death rates.

Living next to quarries also results in ill effects. Given that Western quarrying operations should not produce dust, the data for Western nations is difficult to find. However the data is plentiful for countries where adequate and appropriate dust suppression is not undertaken. For example “People who live in close proximity to the quarry sites reported exposure to dust at home (98%)... plant leaves covered with dust (97%)... The exposed group reported significantly higher eye and nasal allergy (22% vs. 3%), eye soreness (18% vs. 1%), and dryness (17% vs. 3%), chest tightness (9% vs. 1%), and chronic cough (11% vs. 0%) compared to the control group. Lung function parameters were significantly lower among the exposed group compared to the control group; mean forced vital capacity was 3.35 L vs. 3.71 L, mean forced expiratory volume in the first second was 2.78 L vs. 3.17 L. Higher levels of airway restriction were found among the exposed group. Among the exposed group, lung function parameters worsened with the increasing closeness of home to the quarry site.”¹⁶

Other studies have shown non lung issues associated with dust, just as smoking data shows more than just the breathing system is impacted. For example a study recently conclusively concluded that one off dust exposure from a dust storm, resulted in a significant increase in risk of heart attack, “meta-analysis that has demonstrated that exposure to desert dust results in a 2% increase (for every 10µg/m³ of PM10-dust) in cardiovascular mortality risk as assessed on the same day of exposure.”¹⁷ Dust storms are not occupationally related dust exposure and are one off events.

13 Particulate Matter (PM) Basics United States Environmental Protection Agency. Updated July 18th 2022.

14 Ambastha SK, Haritash AK. Emission of respirable dust from stone quarrying, potential health effects, and its management. *Environ Sci Pollut Res Int.* 2022 Jan;29(5):6670-6677. doi: 10.1007/s11356-021-16079-4. Epub 2021 Aug 28. PMID: 34453257.

15 Brunekreef B, Beelen R, Hoek G, Schouten L, Bausch-Goldbohm S, Fischer P, Armstrong B, Hughes E, Jerrett M, van den Brandt P. Effects of long-term exposure to traffic-related air pollution on respiratory and cardiovascular mortality in the Netherlands: the NLCS-AIR study. *Res Rep Health Eff Inst.* 2009 Mar;(139):5-71; discussion 73-89. PMID: 19554969.

16 Nemer M, Giacaman R, Hussein A. Lung Function and Respiratory Health of Populations Living Close to Quarry Sites in Palestine: A Cross-Sectional Study. *Int J Environ Res Public Health.* 2020 Aug 20;17(17):6068. doi: 10.3390/ijerph17176068. PMID: 32825513; PMCID: PMC7504702.

17 Domínguez-Rodríguez A, Báez-Ferrer N, Abreu-González P, Rodríguez S, Díaz R, Avanzas P, Hernández-Vaquero D. Impact of Desert Dust Events on the Cardiovascular Disease: A Systematic Review and Meta-Analysis. *J Clin Med.* 2021 Feb 12;10(4):727. doi: 10.3390/jcm10040727. PMID: 33673156; PMCID: PMC7918944.

Asbestos, Erionite and Tremolite

The risks of asbestos are well known, and HCB does not see the point in discussing this at length. It is obviously significant concern for the community given the current lax approach to dust management on site and in the road network.

In addition to this is the newly discovered health impacts of other asbestos like materials, for example erionite. Please see appendix five for a paper that should be read to understand this hazard. In summary, erionite is a long fibre that can become airborne like asbestos and has similar health hazards. It is present in much of Auckland's Geology. And the population is exposed via development. To quote "Most of these excavations are into Waitemata Group rock [which contains erionite], and the material is usually loaded onto trucks, transported by road and dumped as fill or in former quarries.... , there is the potential for significant exposure of some of Auckland's [Huntly's] population to erionite-bearing rock dust if appropriate dust management strategies are not carefully implemented."¹⁸ This is exactly the situation which is proposed, to take material from Auckland to Huntly and it is highly likely this material will contain erionite which has the same risks as asbestos but does not have the same controls around it.

Another lesser known example is Tremolite. This is in the same family as asbestos, yet is far more dangerous. With one health and safety laboratory stating "Tremolite thus proved to be the most dangerous mineral that we have studied"¹⁹. So for a laboratory that specializes in nasty substances this is a massive statement. Unsurprisingly they also state "The greatest care should be exercised by industry in handling tremolite or materials contaminated with it."

Asbestos fibres to clear from the lungs via cleaning up using specialized white blood cells called macrophages. This process takes a long time, and can be easily overwhelmed. However it does occur albeit in a slow way. Whereas it would appear that tremolite fibers take much longer to clear or never clear at all. "The long tremolite fibers, once deposited in the lung, remain over the rat's lifetime with essentially an infinite half-time. Even the shorter fibers, following early clearance, also remain with no dissolution or further removal".²⁰ And unsurprisingly for this information to be included in the report the presence of tremolite has been confirmed in Auckland²¹.

Managed fill impacts

Will the managed fill give rise to more dust, or less dust? The answer is obviously more dust. More earth will be bare, more dirt will be moved about, new sources of dust like trucks dumping materials will be introduced, more trucks will be travelling on internal roads, more trucks will be traveling on external roads etc. etc. etc. Furthermore this dust will have an even greater effect on residents, since instead of being 'only' silica / rock dust, it will also have heavy metals, asbestos, asbestos like fibres, and who knows what else.

What we have shown is dust is produced in significant quantities by the current operations. Both from the property itself and by the movement of dust and debris up the road into the residential areas. G & C are not taking the appropriate steps to mitigate this hazard for the community. HCB strongly believes that G & C current blasé attitude with respect to dust shows a lack of good character and concern for the community and their workers. And since past performance is an excellent indicator of future behaviour, we can conclude that the managed fill operations will also

18 Brook MS, Black PM, Salmond J, Dirks KN, Berry TA, Steinhorn G. Erionite in Auckland bedrock and malignant mesothelioma: an emerging public and occupational health hazard? *N Z Med J.* 2020 Jul 17;133(1518):73-78. PMID: 32683434.

19 Davis JM, Addison J, Bolton RE, Donaldson K, Jones AD, Miller BG. Inhalation studies on the effects of tremolite and brucite dust in rats. *Carcinogenesis.* 1985 May;6(5):667-74. doi: 10.1093/carcin/6.5.667. PMID: 2988806.

20 Bernstein DM, Chevalier J, Smith P. Comparison of Calidria chrysotile asbestos to pure tremolite: final results of the inhalation biopersistence and histopathology examination following short-term exposure. *Inhal Toxicol.* 2005 Aug;17(9):427-49. doi: 10.1080/08958370591002012. PMID: 16020039.

21 E. J. Searle (1959) Schistose rocks from St. Heliers Bay, Auckland, *New Zealand Journal of Geology and Geophysics*, 2:2, 368-379, DOI: 10.1080/00288306.1959.10417655 tremolite mentioned at the bottom pg 274

have exceptionally poor dust management. And as such the commissioners should reject their application.

Mitigation If the commissioners unfortunately see fit to grant G & C managed fill site, we would request the following mitigation be undertaken to eliminate the hazard of dust from the community:

- Install a road to take trucks away from residential roads. This is further discussed under traffic.
- Highly regularly spraying of the dump site and associated internal roads. That this been done proactively and not reactively. So is sprayed before the ground dries out and dust occurs. This cannot be left up to G & C to determine. We are not roadway experts, and thus the schedule would have to be determined by interdependent experts in the area. It would also have to be based upon objective instrumental measurement, not subjective human assessments. The subjective human assessments are not working, thus it needs to move to surface moisture metering, sunlight measures or whatever combination of information is required to get the job done properly.
- Proper cleaning of trucks. The current wheel wash, does clean the wheels. But material clearly remains in other parts of the truck, likely including the underside. An example of of how the wheel wash allows dirty trucks back onto the road is shown below. A truck wash that removes material from the underside of the truck along with sides and back would result in clean trucks leaving the site.



Truck post wheel wash. The triangle of grey on the cab side, is build up of dust / crud over purple paint

- Spraying down of the road so that dust is suppressed from road usage. Northbound this would occur through to the start of Riverview Riverview road (giving the tanker the ability to turn around at the gravelled parking area). Southbound this would have to go through to Kauri Lane. The majority of trucks head north from the quarry hence the shorter distance required southbound. Again this should be done proactively and before dust becomes a problem.
- Sweeping of roadsides and gutters. The volume of material that comes off the trucks and ends on the roadside is significant. The gutters are cleaned on a 6 monthly cycle in Huntly. It only takes weeks since the last sweep for the roadside gutters to fill up with mud, sand, gravel etc. From the truck movements. This detritus accumulates all the way down Riverview road, around the Tainui Bridge round about, across the bridge and through to the round about on the East side of the river. Therefore monthly removal of this material, including all around the round about islands, should occur to remove this source of dust pollution.
- Cleaning of road signage on a monthly basis
- Monitoring of dust to include both volume of dust produced and particulate size, so measuring PM2.5 and PM10 particulate matter. Measuring (1) at the boundary (exactly

locations and number TBD), (2) at the Riverview road boundary at the start of housing (in the vicinity of 160-200 Riverview road) to capture dust from the truck movements and (3) north of the quarry in the new subdivision and/or Blundel Place which is the closest part of town to the quarry.

- Do not allow the managed fill which contains the asbestos and asbestos like material to be disposed of on site.
- If asbestos and erionite is allowed then to monitor for asbestos fibres and erionite at the above locations of boundary, river view road and blundel place.
- Measure the erionite levels in the material coming into the fill. Erionite should be treated the same as asbestos, and as such should have the same cut off levels, and same monitoring for soil levels.
- Measuring of tremolite in the managed fill streams. With a cut off that is less than that of asbestos.
- Long term monitoring of dust around the township via bio-monitoring. The impact of dust into ecosystems can be monitored using biological systems such as lichen. This makes sure that the systems in place to measure dust are working. If a more suitable bio-monitoring organism is known, eg a specific insect then that would also be acceptable.
- That loads must be covered for all trucks, for all entering and exiting the site. This would seem 'common sense' and should already be happening. But local who observe trucks travelling out of Huntly from the quarry report seeing uncovered loads.

c) Vibration

This is a major area of concern that has been completely ignored in the consent documents. This situation is summed up by this quote "Compared to noise, vibration is often overlooked. However, due to an increase in public sensitivity and the success of noise mitigation measures, vibration is becoming an increasingly important issue.²² We note that the U.S. Department of Transportation has a 258 page document on the subject²³ so it is not like vibration and its effects have not be studied or quantified.

Vibration is important because it impacts quality of life. For example impact on sleep. High quality sleep is essential for quality mental health. For example a NZ study stated "Population prevalence estimates indicate that self-reported insomnia symptoms and sleeping problems are higher among Maori than non-Maori. Multiple logistic regression analyses showed that self-reported insomnia symptoms and/or sleeping problems are significantly associated with reporting poor or fair health and quality of life outcomes. Approximately one-quarter of adults in New Zealand may suffer from a chronic sleep problem, highlighting insomnia as a major public health issue in New Zealand."²⁴

Vibration has a bit impact on sleep, as the table below²⁵ summaries the effects

22 David Waddington, James Woodcock, Michael G Smith, Sabine Janssen & Kerstin Persson Waye (2015) CargoVibes: human response to vibration due to freight rail traffic, International Journal of Rail Transportation, 3:4, 233-248, DOI: 10.1080/23248378.2015.1076623

23 Transit Noise and Vibration Impact Assessment Manual SEPTEMBER 2018 FTA Report No. 0123

24 Paine SJ, Gander PH, Harris RB, Reid P. Prevalence and consequences of insomnia in New Zealand: disparities between Maori and non-Maori. Aust N Z J Public Health. 2005 Feb;29(1):22-8. doi: 10.1111/j.1467-842x.2005.tb00743.x. PMID: 15782867.

25 David Waddington, James Woodcock, Michael G Smith, Sabine Janssen & Kerstin Persson Waye (2015) CargoVibes: human response to vibration due to freight rail traffic, International Journal of Rail Transportation, 3:4, 233-248, DOI: 10.1080/23248378.2015.1076623

Table 4. Effects of vibration on sleep.

	Effect	Significant findings ¹
Biological changes	Change in cardiovascular activity	Increase in heart rate ²
	Change in sleep structure	Reduction in REM sleep Greater number of sleep stage shifts ³ Greater probability of sleep stage shifts ² Shorter period between falling asleep and first awakening Shorter maximum length of uninterrupted time spent in slow wave sleep
	EEG awakening	Increase in probability of EEG awakening ²
Sleep quality	Waking in the night/too early	Increase of reported awakenings/waking too early
	Difficulty in getting back to sleep	Greater difficulty in getting back to sleep once awoken for higher amplitudes of vibration
	Self-reported sleep disturbance from vibration	Increase in proportion of people reporting sleep disturbance Self-reported sleep disturbance related to vibration amplitude
	Self-reported sleep disturbance from noise	Decrease in self-reported sleep quality Vibration related to increase in proportion of people reporting sleep disturbance from noise
	Decreased restoration	Decrease in self-reported restoration

Notes: ¹The effects presented in this column are those for which a statistically significant result has been observed relating the effect to vibration exposure. However, it should be noted that these effects do not occur irrespective of vibration level.

²This response relates to individual vibration events.

³This response relates to the sleep macrostructure.

The US Department of Transportation recommends that for frequent events that homes were the public sleep should be exposed to no more than 0.10 mm/s, rms of ground borne vibration impacts²⁶. G & C have not shown that the River view road and suburb will not be only exposed to levels below this level for the managed fill.

The propagation of vibration is dependant upon soil type. And wet soils, peat and clays allow the vibrations to propagate much further than other types of soils. Thus vibration may travel 100's of meters through these types of soils and still be above the 0.1 mm/s, rms threshold.

Vibration is increased with poor quality of roads. Both in terms of surface finish, pot holes and any other things that increase the force that the tires are hitting the road. The Riverview road is a poster child for a poor road. These issues are inherent in the soil conditions the road is build upon. The road is right next to the river, and is highly likely to be built on unconsolidated sediments. Ie soft ground, like peat or river sand. This material moves about has heavy vehicles cross it. So hence the road has sudden changes in elevation ie is a wavy road. It is regularly potholed due to the heavy traffic, and does not have a smooth surface. So if a road was designed to maximize vibration it would look very similar to Riverview road.

26 Hajek, Blaney & Hein Mitigation of Highway Traffic-Induced Vibration. Quiet Pavements: Reducing Noise and Vibration 2006 Annual Conference of the Transportation Association of Canada Charlottetown, Prince Edward Island

Lastly to add the complexity, the impact of vibration is increased due to psychological factors. These factors are listed in the table below²⁷ and many of these are present for River road suburb residents.

Table 5. Summary of the effects of non-exposure factors on annoyance.

	Factor	Significant findings
Time of day	Evening	Annoyance greater during the evening than during the day at the same level of vibration exposure
	Night	Annoyance greater during the night than during the evening at the same level of vibration exposure
Situational	Visibility of source	Annoyance greater if the source is visible
	Time spent at home	Annoyance greater for people who spend fewer than 10 hours per day at home
	Type of area	Annoyance greater for people living in rural areas
Attitudinal	Concern of damage	Annoyance greater for those concerned that vibration is damaging their property or belongings
	Expectation regarding future vibration	Annoyance greater for those expecting vibration to get worse in the future
	Necessity of source	Annoyance greater for those considering the source unnecessary ¹
	Noise sensitivity	Annoyance from vibration greater for those considering themselves as noise sensitive
Socio-demographic	Age	Annoyance greater for those in the middle age group

Unsurprisingly residents have complained about vibration to the HCB. This includes the rattling of nicknack's / photographs / items on display, cracking in newly plastered renovations, and of course sleep disturbances. Thus indicating that they are experiencing in excess of 0.10 mm/s rms of vibration. Which is over the US DoT standards.

Managed fill

The great the weight of the vehicle, along with increasing speed is the two variables that increase vibration. And “The increase in the volume of heavy trucks increases the probability of the occurrence of particularly heavy trucks and trucks with malfunctioning suspension and exhaust systems”²⁸ The managed fill is going to significantly increase the number of truck movements that contain a load, thus are vibration producing loads. Since the trucks that are currently empty will be returning fill.

Given that G & C have not considered the impact of vibration on the community HCB would request that the consent process be paused until this work is done.

Mitigation. Obviously an intelligent discussion around vibration can't occur until we know what exactly is occurring, and that requires G & C to gather data and report back. They need to measure

27 David Waddington, James Woodcock, Michael G Smith, Sabine Janssen & Kerstin Persson Waye (2015) CargoVibes: human response to vibration due to freight rail traffic, International Journal of Rail Transportation, 3:4, 233-248, DOI: 10.1080/23248378.2015.1076623

28 Hajek, Blaney & Hein Mitigation of Highway Traffic-Induced Vibration. Quiet Pavements: Reducing Noise and Vibration 2006 Annual Conference of the Transportation Association of Canada Charlottetown, Prince Edward Island

the actual vibration caused by the full trucks both at road edge and a range of residents. And that they formulate a plan to mitigate any vibration to the US standard of 0.1mm/s rms. Suggestions of mitigation options could include:

- Installation of haul road to bypass riverview road and most of the suburb. This is discussed under transportation
- Reduce speed limit for trucks to 50km/hr all along river view road. This reduction in speed limit would result in less vibration, but can't speculate if it would meet the standard.
- Limit in hours of operation. The current hours requested hours of operation will have significant impacts for the population. For early morning truck movements it will impacting quality of sleep, and for evening movements it will be a double whammy of increasing annoyance (see table above) as well as the vibration. Thus causing stress, which is correlated with negative health outcomes. Therefore the hours of operation with fill truck movements should not start till 7am in the morning, and 8am on Saturday. And should end at 5pm weekdays and 12pm Saturdays.

d) Water

EAP level

HCB is concerned about the 3% EAP level. We can't trace where this figure comes from, but assume it must come from WRC data around rainfall events. Our concern stems from local knowledge of how the Taupiri - Hakarimata range attract and hold onto rain. Thus creating a micro climate of higher rainfall and no doubt higher EAP. It is very common for Huntly to be in sunshine while the clouds and the rain hold onto nearby hills and munga. The G & C quarry is close enough to this hills, and the managed fill sits of higher elevation (100+meters).

Therefore to take an average figure produced by a model, would underestimate the local effects. Obviously with this underestimation the risk of systems not being able to handle what they should increases dramatically.

An example of this is the fill site #2 earthworks that were created. These earthworks were created to allow truck and trailer units to turn around and dump over the edge into the gully. There was a berm created on the tip edge. One assumes this was to stop trucks going over the edge. In rains over this winter the berm pooled water, and then the water storage got so high that it overtopped the edge, that then eroded an incision into the berm which moved a large volume of clay, which changed the stream color of the stream that followed into lake Puketirini. We will present photos of this event at the verbal submission.

One would assume that this dumping and berm system was designed to the same specification and EAP level as what is proposed for the water management. Which is clearly inaccurate.

Long term impacts

Key concern is that after a few years the managed fill site will be fill. However contaminants in the fill will be present for ever. Thus in 100 years time when all of us have died and our grandchildren are playing with their children in the lakes and rivers, we don't want them exposed to the leachate from the contaminants. We are all aware of the mistakes made decades and decades ago that come back to bite as folks then underestimated the risks of waste disposal.

Furthermore if for whatever reason higher than allowed waste is deposited on site it is going to take time for the leachate to appear with elevated levels. And G & C blatant disregard for doing the right thing the odds of this occurring has to be high. The migration of toxins through fill is slow and steady. Given the number of variables involved (soil types, rainfall, contamination level, soil pH etc) a figure of the toxin movement appears to be impossible to estimate. Therefore long term monitoring is essential to know exactly what leachate is occurring. Monitoring should be required

until there is no possibility that an increase in contaminants in the leachate is going to occur. We don't know how long this time frame is, but should be decades, and we would suggest 50 years.

Lake Puketirini

The argument used for the managed fill is that the leachate will flow into the Waikato awa and using the rule of thumb 'the solution to pollution is dilution' the heavy metals and other toxins will be diluted due to the large volume of flow.

However this argument isn't applicable for lake Puketirini. Since this lake has a very small / narrow outlet and low water turn over. There is no discussion of existing lake heavy metal / contaminant levels, like there was in the awa. Therefore there is no evidence presented that the lake will not be significantly impacted by the leachate run off from the contaminated material at till site #2.

Waikato awa

"The Waikato River Authority is an independent statutory body under the Waikato-Tainui Raupatu Claims (Waikato River) Settlement Act 2010" with a central government mandate stating "Section 22 of the Act states that the purpose of the Waikato River Authority is to:

- set the primary direction through the vision and strategy to achieve the restoration and protection of the health and wellbeing of the Waikato River for future generations:
- promote an integrated, holistic, and co-ordinated approach to the implementation of the vision and strategy and the management of the Waikato River:
- fund rehabilitation initiatives for the Waikato River in its role as trustee for the Waikato River Clean-up Trust."²⁹

Being an independent statutory body, and G & C undertaking a proposal that could negatively impact the health and wellbeing of the awa for future generations, it would be essential that the Waikato River Authority has input into this application.

However HCB could not find any evidence of consultation with the River Authority. This is a massive oversight and as such indicates that G & C have not done due diligence when it comes to the river contamination.

Mitigation.

EAP level. The obvious mitigation would be to measure the rainfall for the next period of time (years) and once the difference is known then calculate the appropriate EAP. There must also be a theoretical way of calculating a more appropriate EAP. We are not hydrology experts, so are not aware of the best level to recommend. However logically there has to be the next step or steps down in the EAP levels for standard design so a 2% EAP or 1% EAP.

Long term impact. We request long term monitoring of the leachate from the system. By long term we are talking 50+ years post closure of the managed fill site.

Lake Puketirini. Removal of the fill area #2 that flows into lake Puketirini

Waikato awa. Since there has been no consultation with the Waikato River Authority we would request that the sites that flow into the awa be declined (sites

Given the complete and utter mistrust of the community that the right thing will be done, independent verification is essential. Therefore online web cams that record continuously, so public can check any time / date for sediment wash out to make sure that the sampling is done / the system is working as it should. As already mentioned multiple times the track record of the company is not one on honesty, ethics and doing the right thing. And the councils are unable to

²⁹ Office of the Auditor-General <https://oag.parliament.nz/2016/co-governance/appendix1.htm>

monitor in real time / enough to make sure things are done correctly. So having full publicly available information will enable residents to check and know if things are not being done as they should.

e) Levels of contaminants in managed fill

The levels of proposed contaminants (2020 data) were compared by HCB to other managed fill sites in Auckland-Waikato region. A number of concerning things were noted, in that the levels requested for the managed fill site of a number of highly toxic heavy metals and petrochemicals were much higher than the industry standard. These are shown in the table below. The other sites data were combed from publicly available information (websites and consent documents).

The lead limit is 4 – 6 times larger than other managed fill sites. Mercury limits are double and Zinc levels almost double. The petrochemical limits are orders of magnitude larger than any other site.

	Huntly Proposed	Drury (Stevensons)	Winstone Hunua	Winstone Aggregates 3 Kings	Twilight Rd (Auckland)	Greenvision (Auckland)
Lead	1000	250	250	250	160	210
Mercury	1.5	0.75	0.75	0.75	0.75	1
Zinc	2000	1160	1160	1160	1160	1160
Benzene	0.2	0.004	0.004	1		0.0054
C10-C14	1400			300	450	
C20-C36	20000			5600	1000	

Table comparing G & C levels to other managed fill sites

We note that EHS Support New Zealand Ltd, G & C consultants state in their notes from Table 5, proposed limits “Concentrations of boron above 45 mg/kg, lead above 250 mg/kg, nickel concentrations above 65 mg/kg and zinc above 400 mg/kg in infill materials will require Synthetic Precipitation Leaching Procedure (SPLP) testing to be carried out on the fill materials before acceptance, to demonstrate that elevated concentrations of these elements will not mobilise under conditions likely to be present in the fill area.”

Thus it would appear that G & C are wanting a higher toxic load, but using the argument that the toxins are immobile. However it overlooks the obvious fact that “conditions likely to be present in the fill area” is very nebulous and also underestimates the complexities of the impact of dumping a wide range of materials into one location. The application has a large range of materials that could be dumped on any given day, from marine sediments and muds through to the more common contaminated soils. Given that this will result in marine sediments being right next to a very different soil types, the interactions between the two could have a significant leaching effects that would not be known for years and decades.

The much higher petrochemical levels are a concern. There is argument that the very long chain carbon molecules are stable in the soil. However benzene and C10-C14 are not in that class. Benzene is the complete opposite of a very long chain petrochemical. It has a low boiling temperature of 80°C, has some solubility in water even at 0°C³⁰. So is a mobile petrochemical that is also “finds limited use in consumer items because of its toxicity”³¹. Hence the limit for the managed fill should be 0.004.

³⁰ Wikipedia, Benzene. <https://en.wikipedia.org/wiki/Benzene>

³¹ Ibid

The C10-C14 carbon chains are also mobile. For example the chemical datasheet for C10-C12 indicates these carbon chains are “slightly soluble in water”³². Thus they will be mobile in the soil. And a quick google indicates that these substances can be liquid at room temperature (this depends on exact structure, number of of double bonds etc) and used as lubricants and fuels, so applications that depend on being fluids. Again indicating the high mobility of these chemicals.

We also note that there doesn't appear to be a consultants report

Mitigation. HCB suggests that the optimal mitigation measure is to only have a clean fill site at the Huntly quarry.

If having only cleaning fill is not possible we request that the limits of heavy metals and petrochemicals be lowered to the minimum industrial standards of

- 60 for lead
- 0.75 for mercury
- 1160 for zinc.
- Benzene limit of 0.004
- Carbon chains 10-14 limit of 300
- Long chains of 20-36 limit of 1000.

Remove sites #2 from the plan. This flows into Lake Puketirini. The consultants report reads like they only consideration is the Waikato river, with quotes such as “A higher waste acceptance criterion for zinc is proposed for this site than either Ridge Road Quarry or Holcim Bombay Quarry. Environmental modelling (see Section 3.1) indicated that the Waikato River has significant dilution capability for zinc.”³³ (pg8) This completely ignores the reality that the managed fill sites include area #2 which leachate flows into lake Puketirini. Lake Puketirini is in section 2.6.3 (pg 6) of the report and states that “Limited water quality data has been collected over the summer months from November 2021 to February 2022 (See Table C-1 in Appendix C). One additional water sample was collected in June 2020. However, the water quality dataset is not extensive and is unlikely to represent the seasonal variability of all water quality parameters.” We were unable to find any appendix C in the document, nor in the associated documentation online. There was an appendix C in Fill site #3 analysis but this does not related to lake Puketirini. Thus we cannot conclude that the impact on the lake will be less than significant.

Have data online as to what has arrived at the managed fill site each day. Thus allowing public to verify the validity of the information ie that stated truck flow is reality. And that this information includes the source of the fill material and its classification eg Auckland tunnel and marine sediments. Relevant laboratory information (eg tests showing it is acceptable for contaminated fill) and lastly it includes the metallic contamination levels as measured upon entry. Thus allowing for transparency in the process.

32 Chemical Datasheet. C10-C12, UNSATURATED HYDROCARBONS (COMBUSTIBLE LIQUID, N.O.S.), <https://cameochemicals.noaa.gov/chemical/21506>

33 Assessment of Environmental Effects and Waste Acceptance Criteria Huntly Site 300 Riverview Road Huntly, NZ Prepared for: Gleeson Managed Fill Limited Prepared by: EHS Support July 2022

f) Traffic effects

Staggered that in both the 2019 report and in the 2022 report (pg 12 for both) includes an assumption that the traffic would be split 50:50 north and south. All locals are aware that there is far more northern traffic than southern traffic. And senior management at G & C would have to be aware of this also. The only reason that a more accurate north-south split was not used is it either saved G & C money in the report, or make the end result more palatable for the council consents.

Therefore it appears to be deliberate dishonesty or obfuscation by G & C.

A few simple checks shows how erroneous this 50:50 assumption is.

- Monitoring the road cleaning crew. Miraculously after years of issues and unable to see the road markings outside the quarry due to the thick layer of filth, the road as of <date> is being swept and washed. The sweeper was monitored over 1/5 hours, and at no time did the road sweeper go south of the gates. It was always north. Thus indicating that the overwhelming amount of traffic is northern.
- Length of dust tracks on the road. A simple measure of how much vehicle traffic was north or south bound from the quarry would be to measure the level of dust on the road. Travelling south at approximately 800m south, the debris on the road were not longer a major feature of the road surface (the dust layer was still present, but was faint). Northern bound there was clear debris all the way up to the Tainui bridge – Rotowaro – Harris round about where the town traffic then interfered with any meaningful way of assessing the debris on the road. Since the additional traffic tracks it away and who is to say that trucks coming from other places are adding to the material. This length was 2.9 km. So ratio of 0.8:2.9 which is 1:3.6 which is approximately 30% south bound and 70% north bound. This is the upper limit as to which south bound is used. Since the northern bound end of significant debris couldn't be determined.
- Measuring of truck direction. A random 1.5 hour timeslot from 11:30am-1pm on Tuesday 2nd of August truck movements out of the site were monitored. A truck and trailer unit was counted as a 1, and a truck without trailer or cement mixer was counted as a 0.5. There were 36.5 movements to or from north and only 7.5 to or from the south. This comes out at approximately 1:5 south to north. So 20% south and 80% north.

All three ways of measuring if the 50:50 assumption is correct have shown this assumption to be totally incorrect. A more valid assumption would have been to state 100% northern bound and 0% southern bound!

Therefore we request that the commissioners reject the traffic assessment as invalid as it is based upon incorrect assumptions.

“The proposed hours of operation related to truck movements to and from the site entrance are from 5:00am Monday – Friday (except from 1 May to 30 September when the day will finish at 6:00pm) plus 6am – 3pm on Saturdays.”³⁴ (pg3).

This statement lacks the end time of the noise creation. This is a significant over site and yet again shows a lack of care and attention to detail in the report. It does later clarify by saying

“This proposal also seeks to increase the operating hours to the following:

Between 1 October and the 30 April;

Monday to Friday 5.00am to 8.00pm.

Saturday 6.00am to 3.00pm

Between 1 May and the 30 September;

Monday to Friday 5.00am to 6.00pm.

³⁴ Hegley Acoustics Consultants. PROPOSED MANAGED FILL 300 RIVERVIEW ROAD, HUNTLY ASSESSMENT OF NOISE EFFECTS Report No 19069/2 2022

Saturday 6.00am to 3.00pm³⁵ (pg8)

Mitigation.

The ideal solution for these traffic issues, and associated ill effects, would be a separate bridge be built across the river for use by G & C. The current bridge in Huntly is old and as such is having issues handling the heavy vehicle traffic for example sudden failure of the roller bearings only a few years after a major renovation. Given that G & C is said to own the land opposite their quarry, it is logistically possible to build a bridge across the awa connecting the quarry directly to the old SH1 corridor.



Map showing how close the quarry is to the old SH1

The board appreciates that this is an economically costly option. However a less expensive option that has many of the benefits (although still puts pressure on the old bridge) is having G & C build a high quality sealed haul road to Rotowaro road, and allowing the heavy vehicles to bypass using river road. This would solve a lot of the issues around usage of a narrow road built on soft / moving riverside materials. Solve the lack of adequate pedestrian access

The road could run from the northern boundary of G & C. Through the land that was once an open cast coal mine. So is already heavily modified, and may have heavy vehicle tracks through it. Then coming out through the heavy industry area on Rotowaro road.

35 ESTABLISHMENT AND OPERATION OF A MANAGED FILL ACTIVITY RIVERVIEW DRIVE, HUNTLY TRAFFIC IMPACT ASSESSMENT 27 May 2022 Reference 221204 TRAFFIC ENGINEERING & MANAGEMENT LTD



Existing land zoned heavy industry with well form roadway access

Ex- coal mine lane

G & C northern boundary

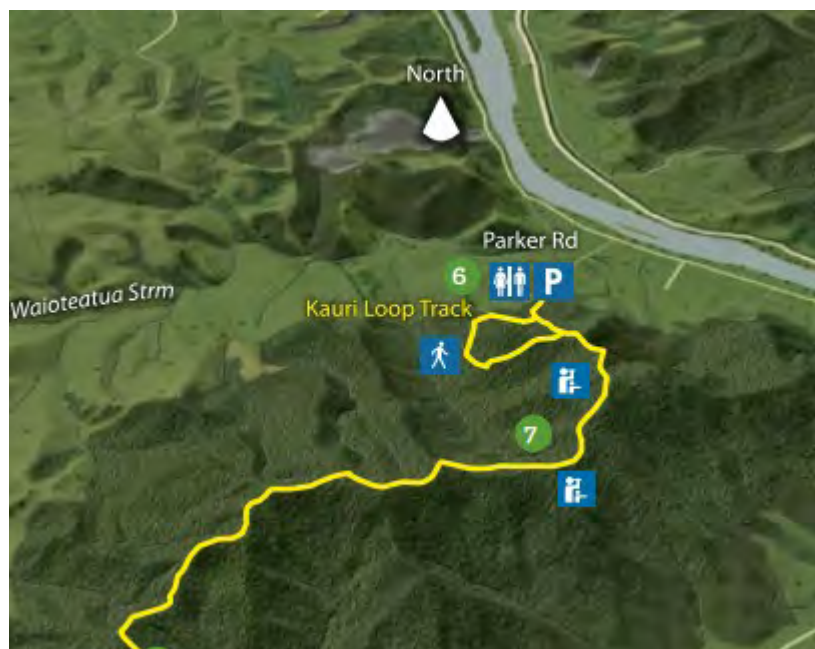


Close up of the access road through the heavy industrial zone.

g) Traffic effects – pedestrian impact

One of the important things about modern design is the inclusion of pedestrian accessibility. In 2021 HCB produced a footpath and walks strategy to guide short timer and long term investment into making Huntly and surrounds more pedestrian friendly. As part of this a number of shorter term and longer term issues were discussed:

- Short term, The poor state of the footpath along Riverview road, with sections of the existing footpath being soft gravel that is difficult to traverse.
- The lack of footpath servicing the southern part of Riverside road, with no footpath from #160
- The lack of pedestrian access for locals through to Hakarimata walkway of Kauri lane.
- The lack of pedestrian access for the users of Te Araroa walkway. To quote the report “Walkers who travel this section put their lives in danger by the extremely narrow shoulder and significant volumes of quickly moving heavy vehicle movements. There is also an issue of a one way bridge, with no space for walkers”³⁶



Screen shot from Department of Conservation brochure on Hakarimata tracks. Showing the Hakarimata track, northern entrance is just south of the G & C quarry operations.³⁷

³⁶ Footpaths in Huntly – A roadmap forward presented at Huntly Community Board Tuesday, 8 December 2020

³⁷ Hakarimata tracks Department of Conservation <https://www.doc.govt.nz/globalassets/documents/parks-and-recreation/tracks-and-walks/waikato/hakarimata-scenic-reserve-tracks-brochure.pdf>



Left – Google maps showing the route of the Te Araroa trail through Huntly, down Riverview Rd past G & C quarry and through to the Hakarimata walkway.

Even though the Hakarimata trail is heavily used track and recreation area by locals the only safe way to access this is via car. It would be exceptionally dangerous to attempt to bike or walk there because the road is narrow wedged between the river and steep bank. This narrow road has high volume of quarry truck movements along it, often in 70km/hr zone. This section is also on The official Te Araroa website lists the hazards of this section being “Vehicles on road or track - take care on the one lane bridge”³⁸

The managed fill truck movements is going to exasperate these issues. Especially as fully laden trucks have massively more momentum than empty trucks and thus pose a higher risk for pedestrians.

Mitigation. There are options of mitigation. One is for G & C to build a footpath along Riverview road allowing walker and bikers access through to Parker road which has a wide verge and little traffic as it is a dead end road. The bottleneck of the bridge would require a footbridge for cycle and foot traffic.

As already discussed another option would be to create a haul road and shut down the river view road entrance. This would remove the heavy

vehicle traffic from the road creating a safer walking / biking environment.

h) Economic benefits

There are very little economic benefits to the town. One paper it might seem like a lot, with 160 trucks on the road (as of early 2022) owned by G & C and the quarry servicing other trucking firms. However there are no truck stops in Huntly to harvest any cash from these drivers. The trucks logically cannot enter the CBD area, and thus congregate around the toilet on the old SH1, in metalled area in the residential area off Riverview road (causing large potholes) as well as around the quarry entrance. It would appear there is no space for parking the quarry itself. So all of these areas being public land, show yet another drain on the local economy with rate payers having to pay for the upkeep of these parking areas, but we digress.

Thus there are no cafe or food places benefiting from the truck traffic. So no economic benefit.

Watching the quarry operations it becomes clear that the contractors who provide services are not local businesses so again no flow on positive effects for the community.

³⁸ Waikato Trail Notes, Te Araroa New Zealand Trail <https://www.teararoa.org.nz/the-trail/waikato/waikato-trail-notes/>

There are very few G & C truck drivers who lives in Huntly, we would estimate between 2-3%. So only a small number of jobs. There are some jobs at the quarry, and at least one person being a local. So there is a small economic benefit of the quarry.

The managed fill will not significant increase staff levels at the site. Given that is is a dump and run operation. There could be one or two full time equivalents added for say a compactor or related operations. There is no guarantee that these FTE's will be locals or provide any local benefit.

Thus there is no economic payoff for Huntly to accept a reduction in the quality of life associated with increased hazards and risk associated with increased truck traffic and the managed fill site.

I) Smell

Again an area that has been completely neglected by G & C and is of concern to the residents. This is because offensive aromas can have a massive impact on quality of life. To quote a paper “In recent decades, scientific consideration of the health consequences of malodors has increased in the context of residential exposures to malodors from municipal solid waste landfills; waste-water treatment; land application of treated sewage sludge; industrialized animal operations; and the production, storage, and transport of industrial chemicals. Environmental malodors may prompt reports of annoyance, worry, and physical symptoms.”³⁹. and “Odor annoyance negatively impacts residents of communities adjacent to persistent nuisance industries. These residents, often with a high percentage of minority or otherwise marginalized residents, experience subjective and objective impacts on health and well-being”⁴⁰

The odds of getting any action taken once the consent has been granted about odours is slim to non. That is because it is very hard to nail down what is causing the odour and what remedial action is to be taken. It is common sense to anyone who has been close to marine sediments that they stink. Yet how would you quantify this aroma, and how far it could travel? This coupled with how G & C and WDC have acted in the past, the odds of anything being done about any stink is slim and none.

Mitigation

- Remove the managed fill part of the fill, leaving only a clean fill site.
- Remove the sections that have high probability of causing odour, which HCB understanding is acid sulphide soils, marine sediments however HCB is well aware we are not experts in the field and if other materials proposed to be dumped here could have potential odour issues we ask these also be removed from dumping.

J) Noise

In reading the documents in January 2020 the chair noticed a simple error in the Hegley Acoustics Consultants report. This was that two graphs were copy and pasted from each other, increase of being the actual real data. An understandable error, but one that indicates that precision and making sure the finer details are correct is not a priority. At the time the chair raised this directly with Paua⁴¹ since at the time he was open to the concept of the managed fill. However in the time since this, he now regrets this action, as it allowed the error to be corrected before being publicly available.

District plan

The report states (pg5), the district plan regulations are:

39 Wing S, Horton RA, Marshall SW, Thu K, Tajik M, Schinasi L, Schiffman SS. Air pollution and odor in communities near industrial swine operations. *Environ Health Perspect*. 2008 Oct;116(10):1362-8. doi: 10.1289/ehp.11250. Epub 2008 Jun 5. PMID: 18941579; PMCID: PMC2569096.

40 Kitson J, Leiva M, Christman Z, Dalton P. Evaluating Urban Odor with Field Olfactometry in Camden, NJ. *Urban Science*. 2019; 3(3):93. <https://doi.org/10.3390/urbansci3030093>

41 Email to Bianca Schoeman <biance@pauaplanning.co.nz> titled Re: Missing tables from the Huntly Gleeson Managed Fill proposal dated: Jan 20, 2020, 9:55 PM

Noise measured at the notional boundary on any other site in the GRUZ – General Rural Zone must not exceed:

- (i) 50dB LAeq, 7am to 7pm every day;
- (ii) 45dB LAeq, 7pm to 10pm every day;
- (iii) 40dB LAeq and 65dB LMax, 10pm to 7am the following day.

And the report also states the quarry seeks to start operations at “The proposed hours of operation of the managed fill will be 6am - 7pm Monday – Friday plus 6am – 2pm on Saturdays.”⁴² (pg 3)



Looking at the noise contour maps of fill areas (fig 8 - 11), all show that > 40dB (pink line) at rural properties over the river opposite the quarry. And all but one (Fig 11) show > 40dB at the northern boundary. Therefore the fill operations cannot start until 7am and keep within the district plan. This fact seems to have been ignored by the report.

Also the 45dB boundary (yellow line) also crossed into others rural properties, again the majority of the figures show this. Thus once again showing the operational hours don't met the district plan, and once again showing that the report has ignored this.

Also the model doesn't actually trace the contours East and South of the area. We can't see from the images how far the 40dB sound travels in an Easterly or Southerly direction. Therefore we cannot conclude if what boundaries are impacted.

Snapshot of figure 6 of the report (right). Showing > 40dB at multiple boundaries and incomplete modelling so it is not known how far this noise travels in an Easterly or Southerly direction.

Ignoring of close residents

One of the closest homes of the operation is not even mentioned in the report. This is shown in the figure below – highlighted with a yellow arrow. This is completely ignored in the report. It home is at a significant elevation. Thus companding lovely views over the awa and onto the quarry and proposed managed fill sites. Given their elevation they could have clear and direct noise transmission. Thus they could be hitting 50dB noise level. But since the report didn't consider this home it cannot be said.

Furthermore we don't know why this home wasn't

included. Was in incompetence or will-fill deception.

42 Hegley Acoustics Consultants. PROPOSED MANAGED FILL 300 RIVERVIEW ROAD, HUNTLY ASSESSMENT OF NOISE EFFECTS Report No 19069/2 2022



One of the closest homes to the operation ignored by the report.

What has to be will full deception is the ignoring of the homes most likely to be impacted by the noise. You will note that the above figure, and all the figured in the report, careful cut off just before the residents highlighted by the yellow arrows in the figure below. These are basically opposite the quarry and proposed managed fill site. It is said that employees of the company live in one (both?) of these homes. This will be the excuse that G & C will no doubt use to explain away this deception. However we of course don't know the impact on these homes, and what the future plans of the company is for these (ie sell after getting consents). So they should be included in the analysis. It is highly concerning that the closest residents were carefully removed from any of the noise analysis.



The two closest homes to the operation are carefully excluded from the analysis.

Model validation

It is all very fine and dandy to have a model that predicts a particular noise outcome. However the lack of verification of the model is highly concerning. That is a standard noise at known dB at the fill sites, and then to measuring the noise at particular points on the boundary to verify the model

validity is a basic step to check if the model is producing accurate information. This has not been done.

What the model predicts at the dwellings sites 1, 2 & 3 that the noise generated by the operation would be approx 30 dB. (pg 15). The internet informs us that 30dB is equivalent to a quiet country area. Thus should disappear into the background noise of these areas. However in 2020 a local who lives around the general area contacted one of Huntly's councillors to complain that the heavy machinery that was operating at the proposed fill site(s?) was waking them up in the morning. Given that these folks are inside their homes thus protected by a large barrier from the noise. This indicates that the model is fundamentally wrong. Since real life experience indicates that what occurred is very different from what is predicted. Therefore the model cannot be trusted.

Mitigation

Given the large number of critical errors and deficiencies in the report, we cannot see how it can be trusted or gives trustworthy information. Therefore we conclude that accurate noise assessment has not been undertaken. And as such the application for consent be declined.

It is impossible to request serious mitigation measures given we don't accurately know what exactly the noise issues are going to be and who they will impact. Therefore we cannot conclude anything about the noise.

If work is done to address the severe deficiencies then a mitigation discussion could occur, and at that time HCB would create a list of mitigation efforts required. However we can conclude at this time that

- To keep with the district plan the hours of operation should only be allowed to start at 7am
- To keep with the district plan the hours of operation have to cease by 7pm

k) Geotech

Although Huntly is no longer a mining community, with no coal mining done under or around the township (one remaining mine is located ~15 mins West of the township), there is still a lot of knowledge about what exactly was done with regard to mining in the township as people who saw or undertook the work still present in the community.

As stated in G & C documents, that fill site # 3 is the overburden material from lake Puketirini, then called Weaves open cast. This was back in the 'bad old days' when there was little regulation or oversight as to what was dumped and where it was placed. It should really be called mine tailings as it is closer to tui mine and its tailings rather than a well engineered overburden storage of Waihi Opencast.

Any good review would start with a desk top analysis. Seeking information on file from locations such as the Waikato Coalfields Museum (in Huntly), The University of Waikato Library, Waikato District Council Libraries and other sources such as archives in Wellington. These would hopefully indicate what was actually put into the this 'overburden' material and information such as compacting or other relevant engineering factors. This desk top analysis does not appear to have been done, as the report states (dated 2019, labelled A) "No as-built records, completion or design reports are available to confirm the position and pedigree of the historic fill present." this is surprising and we strongly suspect the local resources were not explored (ie if it wasn't online it was deemed not to exist).

Furthermore a wise consultant would then talk to folk who were there and saw with their own eyes what actually went on. Since we all are aware what the paperwork says and what actually happens are two separate things.

Locals who were involved in the operation will tell you that the ‘overburden’ was in essence part of lake Waahi. And everything went into the overburden site. This included organic matter such as all the vegetation that was across the top of the site. Being on the edge of lake Waahi this was trees such as willow trees, ferns, sledges, reeds, and everything else that is found in a swamp. It is also said that duck nests, eggs and duck(s?) ended up in the ‘overburden’ as well !! Obviously once the top layer of the swamp was gone, the muddy slushy sediments were also carted to this site, and then working their way down through the geological column. It is also said that no compaction of this material occurred until very late in the operation. Thus the sediments and materials at the base were not compacted.

It was good to see that the bore test drills went through this layer into the basement sediments. However the number of bore holes concern us. Only three, and all the reports were based upon the conclusions drawn from these three bores and some surface pits only ~2m deep. Given the large area of fill that is to be placed upon of this mine tailings it seems very presumptions to think that 3 bore holes captured the extent of the materials dumped in this location. It is nowhere enough to gain an accurate picture of the reality of what is there.

The report (dated 2019, labelled A) states “No as-built records, completion or design reports are available to confirm the position and pedigree of the historic fill present. As such, sufficient sensitivity checks of the proposed fill to historic fill variability will be undertaken. Also, deep drainage and construction deformation monitoring will be undertaken to mitigate potential poor performance of the underlying fill.” (pg 13)

This is both (a) very important and (b) remarkably vague. Important because locals stated “The material was absolute crap, very plastic in nature, marine tertiary sediments. The operators at the time called it “slop.” They capped it with topsoil looking material, containing rocks, coal and clays. Due to the poor drainage of the material and the gradient of the “fill,” after settling over decades and pugging from stock it was swamp over winter and dried out rock hard over summer.”⁴³

And vague given that there isn’t any substance or detail as to what exactly will be done. And given G & C very loose playing with rules and regulations, raises serious questions about what exactly will occur.

Lastly we are very concerned that no geotech has been undertaken across the whole overburden area. This is because applying a load to one area of the large overburden site has the impact to create stress that will propagate through the tailing causing movement or instability of the remaining tailings area.

We would request that the fill area #3 be removed from the planned managed fill site since there is not enough detail in the reports to conclude that it is a safe and well planned site.

Mitigation

If fill site #3 is to be part of the managed fill area. A full and thorough geotechnical analysis has to be undertaken before consent is issued. This has to be done by independent consultants who are prepared to make the information public, and not bend the information to the purposes of the managed fill operators.

This analysis needs to extend into the area that is not going to be covered by fill, far enough out to cover the forces that will be transmitted through the fill by the additional load and the impact of these through the rest of the mine tailings.

43 Personal communication from neighbour

And concrete plans need to be drawn up regarding exactly what management and mitigation measures will be undertaken so that it is clear what should be occurring.

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Company at centre of Huntly dump battle broke rules over stockpiled coal

Ellen O'Dwyer · 14:39, Feb 25 2021



SUPPLIED

A company at the centre of a community fight against its proposed landfill has come under fire again, this time for illegally stockpiling coal.

And that's riled a local community leader, who says it's risky environmental practice, yet the company faces no consequences.

Between 1500-2000 cubic metres of coal was found at Gleeson & Cox Huntly Quarry in December 2020, after a member of the public alerted the Waikato Regional Council.

Gleeson & Cox do not have a resource consent to stockpile the coal at the quarry.

According to Genesis Energy emails *Stuff* has seen, about 3000 tonnes of coal was due for Huntly Power Station but transport logistics between Auckland ports and the station meant it was stored at the quarry for two weeks.

Gleeson & Cox had informed Genesis they were allowed to temporarily store coal at the quarry, the email said.

READ MORE:

- * [The Last Lake: 'The food baskets of the region have been degraded'](#)
- * [The Last Lake: Huntly man fights to save the lake he helped build](#)
- * [The Last Lake: 'Huntly won't be dumped on anymore'](#)

But the regional council confirmed to *Stuff* stockpiling the coal was an illegal, unauthorised activity.

Council land development team leader Jorge Rodriguez said stockpiling coal requires a specific resource consent because coal comes with adverse environmental risks that needs to be managed.

It contains a highly mobile contaminant, boron, which can run-off and pollute nearby waterways if there's a heavy rain.

“If this occurs in high concentrations, boron can be toxic to aquatic life.”



CHRISTEL YARDLEY/STUFF

Illegally stockpiled coal was found at Gleeson & Cox Huntly Quarry at a date in December. It was removed after a complaint by a member of the public.

The council became aware of the coal on December 14, and it was removed three days later.

Rodriguez said Gleeson & Cox did not get a formal warning or fine, because the coal was promptly removed and dry weather meant environmental effects were unlikely.

Because there was no discharge to water from the coal, there was no breach of the Resource Management Act as coal is allowed to be placed on dry land, he said.

Instead, they advised the quarry of the risks of the activity, he said.

But community board representative Red Wootton said that wasn't good enough.

"They shouldn't be able to get away with this type of thing.

"It seems like there's one rule for these guys and another rule for us all.

"If I have to do anything, or you have to do anything, there's a consent process for us, but there doesn't seem to be for outfits like Gleeson & Cox."

Wootton said he did not trust the company's environmental management of a proposed managed fill site, given their track record.

national

It's the second time in a year the company has been caught in an unconsented activity.

It was issued with a formal warning after conducting illegal earthworks for a proposed managed fill site at the quarry – which some residents are fighting against.

The company was found to have drained a wetland in the process.



CHRISTEL YARDLEY/STUFF

Huntly resident of 47 years and community board member Red Wootton said he did not trust Gleeson & Cox's environmental management, after illegal earthworks and now unauthorised stockpiling of coal.

When approached by *Stuff*, Gleeson & Cox chief financial officer Mark Pelan declined to comment.

Genesis Energy did not provide an interview with *Stuff* either.

A spokesperson said Gleeson and Cox advised them it was storing some coal there temporarily.

MORE FROM

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ellen.odwyer@stuff.co.nz

sediments at the site.

Residents have [fought for their last clean lake](#), Puketirini, which they say could be in danger from the site.

Rodriguez said no resource consent decisions had been made for the managed fill proposal, and the process is on hold.



CHRISTEL YARDLEY/STUFF

Red Wootton is concerned the landfill site will contaminate the waterways in surrounding areas.

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Appendix Two: Possible illegal dumping at the G & C site

This is included as an appendix as of yet documentation has not been provided to elevate this above the realm of spoken word. Ie no documented proof. Hence HCB is reluctant to proclaim this as reality. Yet there is enough circumstantial evidence to indicate something untoward occurred. If documentation can be found, as the person who has this material has had ill health, with multi operations and treatments, then it will be further presented at the verbal hearing.

A member of the public Huntly noticed a change in behaviour of G & C trucks / company in 2020 when opposition to the managed fill ramped up, and it consents were not forthcoming. Multiple trucks would park up at the public loos on old SH1 very early in the morning. And a ute would then come and they would all travel in convey to the quarry site, and let them all in. This was highly unusual and the trucks were also covered which up to this point was not practice.

The member of the public then followed truck(s?) back to Auckland from Huntly tacking some to the tunnelling site where G & C have the contract to remove waste from Auckland*. He observed the trucks being filled at the tunnelling site, and travelling back to the Huntly site and entering the site while fill. Presumably dumping the material somewhere on site. Again these trucks were covered which at the time was not standard practise.

This is collaborated by other members of the public who work at business around the lights on the old SH1 where there is a red arrow so truck stop to turn onto Tainui Bridge Road. These folks mentioned that the trucks were suddenly appearing to be loaded while returning to the quarry. This is because they noticed (a) they were low in their suspension and (b) slow to accelerate from stopping (compared to the normal speed that empty truck units accelerate at).

This activity did stop towards the end of 2020 (maybe going into 2021, it is hard to determine) so it not current being undertaken.

At this stage no photographs or video evidence is available. But as mentioned above if it surfaces before the verbal hearing it will be presented as solid evidence instead of personal observations.

* This contact can be confirmed by contacting Link Alliance – Maungawhau Station (Mt Eden).

Dust created by Gleeson and Cox trucks using council land as part of their business.
David Whyte, Chair of Huntly Community Board 29th October 2020

Dust has been a significant issue for residents of Riverview road, Hakarimata road and the suburb behind Riverview Road. For example previously in summer I have recorded evidence of visible quarry dust on the road surface up to 7-8km south of the quarry on Hakarimata road.

The dust problem obviously peak in late summer when there has been extensive period of time without rain to wash the dust from the road surface. Therefore this report is about being proactive and taking action before the dust trail is extended North and South of the quarry and causing issues for local residents. Since right now the dust is limited to the rural areas.

The word on the street is that the dust is caused by trucks using the road side gravel areas outside of the quarry operational area. These are highlighted in the figure below.



Therefore I spent half an hour observing truck entrance movements from a high up public location and similar length of time observing truck movements from the roadside. Observing dust creation and management in the quarry and surrounding areas.

What I observed was a systemic use of these gravel areas as part of the quarry operation, and they were treated as though they were owned by the quarry. And the locals were correct, these were sources of significant dust movement.

The use of these areas can be grouped into two categories. One being empty trucks heading to the quarry stopping to remove covers, and the other being full trucks parking up to undertake other activities.

Given that almost all truck traffic on the day of observation was from the north, and heading back north, one would assume that if contracts resulted in southern movements that the same issues would occur with the gravel areas south of the entrance.

Empty trucks heading to the quarry.

On the day of observation, trucks south bound back to the quarry were observed to be grouped into the following three categories.

- Trucks that had either no covers, or covers were already drawn back into storage. These trucks entered the quarry intimately.
- The second group were trucks that had their covers extended over the truck and trailer units. Most of these trucks pulled off into the northern gravel bay. Got out of their trucks and removed the covers, then re-entered the road and entered the quarry. In undertaking this, significant dust clouds were created when the trucks both exited the road, and then started to move again and re-entered the road.
- The third category was a minority which was trucks with extended covers directly entering the quarry without removal of the covers.

This screen shot shows the south bound gravel area where the trucks were pulling off.



An example of a truck pulled off the road, onto the gravel area to remove its cover is shown below. Also note another truck parked up on gravel on the other side of the road. This will be discussed later. Also obvious is the change in colour of the road surface due to dust. The quarry traffic has transported enough dust to cause a major colour difference



Another example is shown over the page. In this case there are four trucks parked up on the southern direction pull off area. Also there are two trucks in the northern direction pull off area.

Four truck pulled onto gravel to remove covers



Two full truck parked up on gravel area

Of the observed 19 truck entries from the northern direction approximately 50% entered the quarry with covers off. 30% stopped in the gravel to remove their covers and 15% entered the quarry with covers still extended. (note the reason these only sum to 95% is due to rounding).

Given that approximately 233 trucks enter the quarry daily¹ if the above numbers are representative of all truck movements this is appropriately 70 trucks a day creating dust clouds by using this gravel pull off area.

Now I attempted to obtain photos of the dust being created, and due to poor photographic technique and not willing to risk life and limb by standing in the middle of the road where the best shots were likely to be obtained, the photographs did not compare to what was visible with the naked eye. Thus no photos of dust clouds are included. However visiting the sight it quickly becomes obvious the volume of dust being created by these truck movements. And the volume being tracked up onto the road where other road users will transport it further afield.

¹ PROPOSED MANAGED FILL 300 RIVERVIEW ROAD, HUNTLY ASSESSMENT OF NOISE EFFECTS Report No 19069/2. Hegley Acoustics 2019.

Full trucks exiting the quarry

Of the 11 trucks observed exiting the quarry over an approximate half hour period, 64% stopped into the gravel area outside the quarry gate, and only 36% went directly onto the sealed surface.

The unsealed gravel area outside the quarry gates is shown in the screen shot below.



It was observed that truckers used the area outside the gate as time to do various tasks. Such as filling in paperwork, making photo calls, cleaning rocks and loading debris from the canvas or other truck parts, talking to one another and walking back into the quarry compound.

Thus it appears that there is no parking on the quarry site where these important functions can be undertaken. An example of the trucks lined up in this area is shown below. This photo shows three trucks parked up, a fourth was also present at this time but is not in the photograph.



It was noted that a water truck was spraying water over the quarry roadways during time spent observing the quarry entrance. A photo of this is shown below. It was noted that the truck came up from the back of the quarry, through the front road ways before heading back into the quarry. Thus clearly the water truck does not come out of the quarry and apply water to the pull off areas next to the road that are being used as part of the quarry operation



So it can be **concluded that:**

- a) Pull of bays outside the quarry boundaries are being used for quarry activities
- b) These activities create significant volumes of dust
- c) That no dust minimization takes place at these locations outside the quarry

Thus the two obvious solutions are:

- a) That the quarry stop using land outside their ownership for quarry operations or
- b) Dust minimization activities (aka water tanker used) take place at these locations outside of the quarry.

Now in principle a business should pay for the services they receive, and as such using community (aka council) owned land to undertake a business, especially one that has negative effects on the community, shouldn't be occurring. Thus the preference has to be that Gleeson and Cox stop using councils lands for their business operations. Thus moving all business operations into the quarry and using the dust minimization measures required inside the quarry boundary to reduce dust.

However it is also acknowledged that in the daily practicalities that sometimes the ideal, principled option isn't always the most appropriate. Thus we would leave it up to the council to decide which of these two steps is the most appropriate in this situation. And would request that the outcome be communicated back to the community board so the public can be made aware of this outcome.

Memo

To: Waikato Regional Council

Re: Dust associated with Gleeson and Cox (G & C) quarry and trucking

From: David Whyte, Chairperson Huntly Community Board

Date: 12th May 2022

Hi compliance team

There is a problem with dust generation that is impacting residents in Huntly along Riverview Road.



Photograph taken 21st December 2021 by local resident from Hakarimata road looking towards quarry and Riverview road. Huntly residents are just to the right out of frame. The quarry is located out of site, over the ridge with yellow arrow.

The dust issue is ongoing and the following stories illustrate the problem is significant and impacting peoples health.

- Local public health nurse stood up at a public meeting to tell her experience after the first lock down in 2020. She said her clients in the Riverview road area all have significant health improvements over lockdown, whereas clients in other parts of town did not. And when lockdown ended her Riverview road area clients health then deteriorated back to ‘normal’ again. The only conclusion she could come to was that the dust generated by the operation was causing worsening of the clients health
- In 2022 the WDC councillor who lives in this area, their spouse was showing covid symptoms. Upon calling to the doctor and finding their address, was told that it was unlikely to be covid as folks in that area regular have these symptoms and it is not covid. Again pointing to health impacts from the dust.
- Huntly Community Board members younger / school aged grandchildren moved into Riverview Road . Since then they have had consistent respiratory and health problems that they didn’t have previously.

- Multiple verbal complaints made to many board members about the volume of dust being produced, causing build up inside homes, on vehicles etc.

Gleeson and Cox (G & C) run a quarry operation on Riverview road. This quarry operation supports a significant number of G & C daily truck movements. At the time of writing the G & C fleet is ~120 truck and trailer units which are based in Auckland and use the Huntly quarry as a source of aggregate for there contracts. The quarry is also open for other contracting companies which make good use of the available resource.

The dust could be coming directly from the quarry operations. There are some in town who believe this is the case since the earthworks at the quarry have altered the airflows. Thus increasing the velocity of the wind around the operation, and thus increasing the dust the wind picks up. Apparently when the wind is blowing from a more southerly direction one can see it pick up dust as it goes over the quarry operation. This is definitely requires investigation.

The other source of dust is the roadway. From personal observation, and from photographs like the one at the start of this memo it would be my suggestion as the source of the dust and dust generation into the air is from the road surface and truck movements themselves. I would point to the following as evidence of this:

- *Dust generated when trucks park on entering and exiting the quarry.* Direct observation of quarry operations on 29th October 2020 showed the dust was being generated when G & C trucks parked on the gravel pull of areas next to the road. The large gravel areas were in constant use with trucks parking both before entering and after exiting the quarry. These areas had not dust mitigation measured and generated a plume of dust with every truck movement. One of these areas has since been sealed, but due to the volume of truck movements transporting material out of the quarry onto the sealed area the impact of the sealing on the overall dust generation is now minimal.
- *Tracking of dust down the road.* When one travels down Riverview road, depending on how long since the last heavy rain that has moved material off the road, there is clear dust / dirt on the road for km's in either direction of the quarry. Every time a heavy vehicle moved over this material, if the material is dry then a dust cloud forms behind the truck. Before the new truck wash was installed these could be seen 8km from the quarry! I have not measured the length of visible trails since the new truck wash has gone in. It is clearly less, but is still km's long. Hence showing significant volumes of material are being tracked out of the quarry and into the local road network.
- *Number of heavy vehicle movements.* The number of truck movements in early 2020 were ~ 230¹ truck entrances a day. Thus truck movements in and out of the quarry was ~450 per day. Plus whatever other heavy vehicles may use this road eg farm traffic. I am unaware of the current bias between southbound and northbound traffic, but the overwhelming number of truck movements are north. A truck and trailer unit generates a large amount of air movement as it passes through the air. Observation shows that the trucks moving down the road generate a plume of dust behind them from the dust on the road. So hence truck and trailer units can generate dust km's from the quarry operation.
- *Other indicators.* Once rains, the volume of 'slush' appearing on road cones and next to road. When it rains after a period of dry the dust and material on the road goes to slush. This is then sprayed up and covers whatever is next to the road. When the road was recently lined with traffic cones these were quickly turned grey with slush after wet weather. Indicating that significant volumes of dust material was being transported down Riverview road.

1 PROPOSED MANAGED FILL 300 RIVERVIEW ROAD, HUNTLY ASSESSMENT OF NOISE EFFECTS Report No 19069/2. Hegley Acoustics 2019.

Would acknowledge that G & C have worked to address dust issues. For example upgrading of truck wash system, which has reduced the flow of material out onto the roadway. Also they have worked with WDC to seal and area of gravel outside of their gate where truck regularly park. Thus reducing dust generation from this source (but not eliminating it). I am sure they would implement dust mitigation methods if instructed eg washing down public road / keeping road damp or whatever else their consultants suggest.

What I am requesting is:

- A review of the on sight dust monitoring stations.
 1. Making sure that the data they are producing is accurate (ie system calibrated correctly).
 2. Data they have produced is within the limits set in the consents.
 3. The physical locations of these be reviewed to make sure they are in the right positions to capture the dust migrating off the quarry operations onto the township. Eg that the are between the residents of Riverview road and the major sources of dust.
- Measurement of dust roadside.
 1. That an accurate measurement of dust levels generated by quarry traffic is obtained.
 2. Preferable at multiple points along Riverview Road.
 3. And if these are found to be unacceptably high that a mitigation plan is put in place by G & C. And that monitoring of roadside dust is ongoing to make sure mitigation is working.

Please communicate back to me the results of the above investigations so that the board can have confidence that proper diligence is being undertaken.

Sincerely

David Whyte

Erionite in Auckland bedrock and malignant mesothelioma: an emerging public and occupational health hazard?

Martin S Brook, Philippa M Black, Jennifer Salmond, Kim N Dirks, Terri-Ann Berry, Gregor Steinhorn

ABSTRACT

Overseas, emerging research has shown that where erionite is present in bedrock as a zeolite, and then subsequently disturbed and blown into the atmosphere, resulting exposure is associated with health effects similar to those caused by asbestos, including malignant mesothelioma (MM). Erionite-induced MM is thought to be particularly prevalent in the construction and quarrying industries, in regions where rock containing erionite is disturbed. In 2015, the then Government Chief Scientist, Sir Peter Gluckman, reported that erionite was a more potent carcinogen than asbestos, and more recent studies have established its presence in the Auckland Region. However, globally at present, there are no established occupational exposure limits for erionite, standard sampling and analytical methods or exposure mitigation guidelines. Given the many major construction projects being carried out in Auckland at the present time, which involve the removal of large quantities of bedrock containing erionite, an assessment of the health risks such activities pose to the public is needed.

Asbestos-induced malignant mesothelioma (MM) is of worldwide concern but particularly in New Zealand.^{1,2} The highest mesothelioma incidence is in the construction and building trades.² In addition, non-occupational asbestos induced MM for both men and women is of increasing concern.¹ Studies¹ report that New Zealand is one of a number of high-income countries with elevated incidence of MM (2.6 per 100,000), and that this is a direct result of exposure to airborne asbestos fibres in occupational settings. Indeed, recent reports have highlighted some tragic outcomes of the asbestos disease epidemic here.³ These include cases of how MM was apparently a consequence of exposure to asbestos in the home, following transfer of the asbestos fibres from the workplace. This was thought to have occurred on the hair and clothes of occupationally-exposed family members.³

Erionite and malignant mesothelioma (MM)

Erionite is a naturally occurring fibrous zeolite mineral, first described by Eakle.⁴ Erionite is produced in silica-rich volcanic eruptions, and is then later dissolved by water and recrystallized as zeolites, often in sedimentary rocks.⁵ When aerosolised and inhaled, erionite fibres have been associated with health effects similar to those typically seen with exposure to asbestos, such as malignant mesothelioma (MM).⁶ Several studies have reported how erionite was found to be the causative agent for the mesothelioma epidemic in the Cappadocia region of Turkey, where there is an extremely high level of mortality (800 cases/100,000 population) from exposure to erionite in rock used to build houses.² Most of the affected population had been exposed to erionite

by inhalation since childhood, resulting in up to 50% of all deaths in three villages.^{7,8} Many of the affected people later migrated to Germany and Sweden, and cases of MM caused by erionite were also identified in those Turkish immigrants.⁸ Genetic susceptibility was also thought to be a possible factor in determining the susceptibility of the population to MM, specifically the pathogenic role of BAP1 mutations resulting in mesothelioma, and in other cancers globally, as well as in Cappadocia specifically.⁹ The prevalence of the BAP1 gene in the global population and its more recent link to other cancers globally, along with studies linking MM to erionite exposure in countries other than Turkey (including the US and Mexico), suggest that the results from Cappadocia may not be accounted for entirely by local conditions or be atypical at global scales.⁹

In the US, the carcinogenic properties of erionite have recently sparked interest in erionite as an occupational and public health hazard, particularly in areas where erionite is found in regional bedrock or sediments. However, data concerning health outcomes there are equivocal. A study of North Dakota quarry and road workers reported only a few cases of pleural changes.¹⁰ Notwithstanding that study, although the long-term health impacts remain uncertain, there is concern about inhalation of airborne dust and particulates containing erionite fibres from gravel pits, quarries, roads, building and construction sites.¹⁰ Thus, erionite is now classified by the International Agency for Research on Cancer (IARC) as a Group 1 carcinogen (ie, carcinogenic to humans).¹¹ The potency of erionite as a human carcinogen appears to be higher than that of asbestos, particularly for the development of MM.² However, in contrast to asbestos, erionite mineral fibres do not have established occupational exposure limits (OELs).⁶

Despite the establishment of OELs for asbestos, controversy remains as to whether short intense exposure to asbestos is particularly harmful since it is complicated by non-linear dose concentration-duration-risk relationships.¹² There is also uncertainty as to how asbestos dose-response may relate to erionite dose-response for a number of reasons.¹³ Epidemiological data alone typically lack accurate fibre counts (for erionite or asbestos exposure) and are

inconclusive about risks at specific concentrations.¹² Fibres also vary in toxicity due to morphology and chemical characteristics (composition, surface reactivity, biopersistence etc).¹⁴ There even exists considerable heterogeneity in the responses of cells within the same local volume of tissue,¹² and in vitro techniques do not provide accurate estimates of biologically-effective doses (eg, the numbers of fibres accumulated in mesothelial tissue over time).¹² Nevertheless, exposure concentration does appear to part-control the latency interval between first exposure to asbestos or erionite and the development of MM. Indeed, workers in trades with higher levels of exposure (eg, naval personnel removing asbestos from warships; builders; extractive industry workers), may experience shorter latencies compared to those exposed to lower amounts of asbestos.¹³ Age at first exposure also appears to be important.⁹ Indeed, once a sufficient amount of asbestos or erionite has been inhaled, such as by a six-year-old child growing up in a village or suburb contaminated with erionite, they will develop MM, which suggests that additional exposure(s) may not significantly increase the risk.¹³ However, the threshold above which asbestos and erionite will cause MM, varies among individuals due to genetics, exposure to co-factors, the exact characteristics of the mineral fibre inhaled, etc.^{13,14}

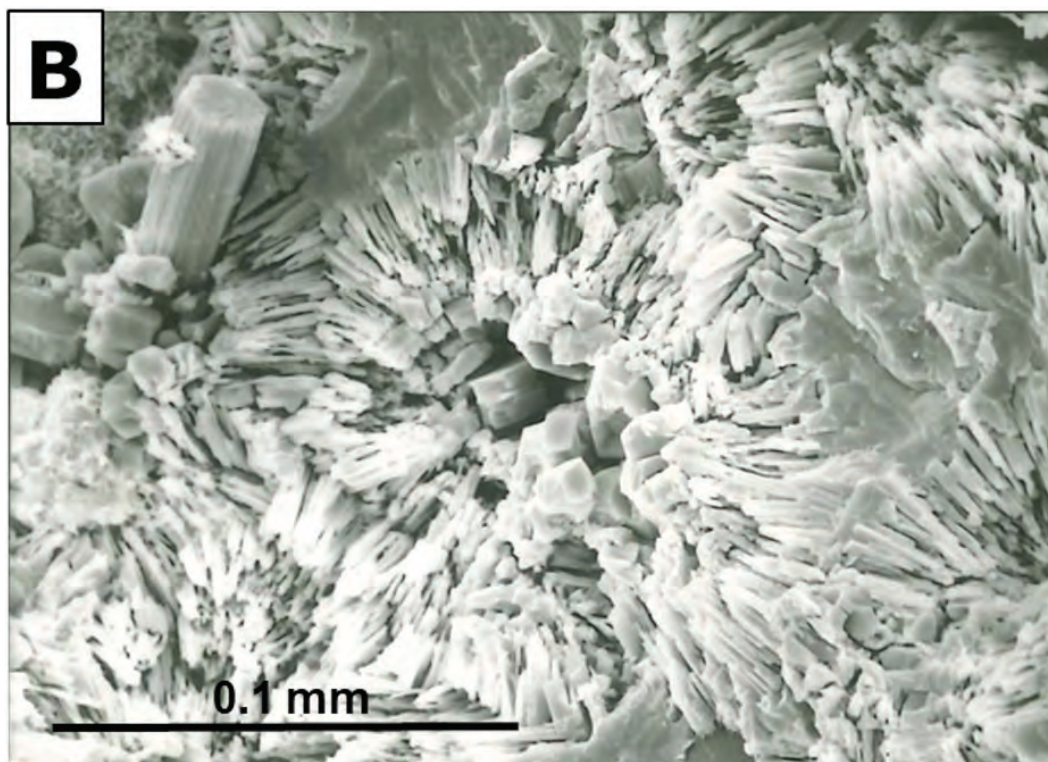
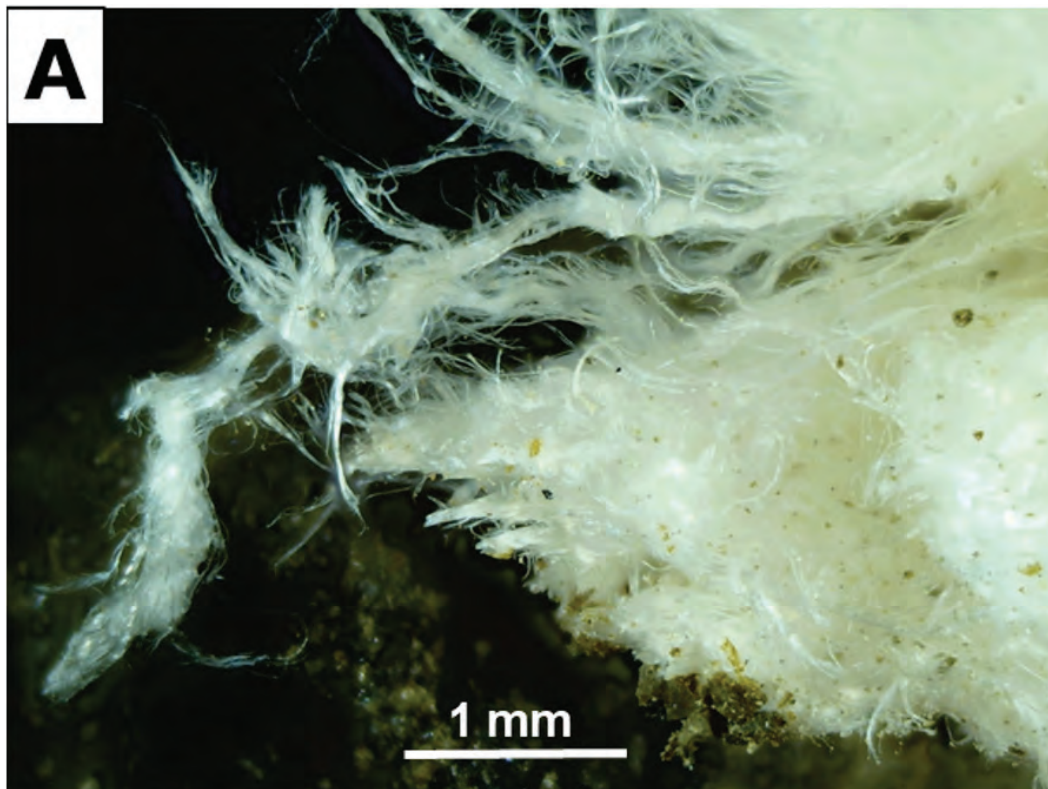
Erionite in Auckland

Despite this emerging body of work overseas on causative links between erionite exposure and MM, any effects of erionite on MM in New Zealand have hitherto not been established.² This is despite erionite being present, for example, in the Waitemata Group sedimentary rocks and the Waitakere Group volcanic rocks that are present throughout much of the Auckland region (Figure 1).¹⁵ In a report on asbestos exposure in New Zealand by the Chief Science Advisor² in 2015, it was mentioned (on page 11) that while most cases of MM are associated with asbestos exposure, erionite is also a risk factor. They then accurately stated that erionite is present in some volcanic ash deposits in New Zealand, but, since the report focused on asbestos, did not further note that erionite is also present in sedimentary rocks such as those underlying

New Zealand's most populous, and fastest-growing region, Auckland. Indeed in the Auckland region, the presence of erionite has been reported by geologists in several studies over the last five decades.^{15,16} It is present within the Early Miocene Waitemata Group sediments in association with highly

altered andesitic clastic material.¹⁵ These are the sedimentary rock formations, for example, that outcrop as sea cliffs along Auckland's North Shore, the eastern bays, and along Tamaki Drive. Thus, erionite is present and exposed in many locations across the Auckland region.

Figure 1: (A) Example of “woolly” erionite in Waitakere Group rock from Te Henga Road Quarry, Waitakere Ranges (Rod Martin); (B) Scanning Electron Microscopy (SEM) image of crystalline erionite (hexagonal crystal and acicular habit) from the Waitemata Group, Hobsonville (sample AU42046).



Over the last decade, Auckland's population growth has led to large transport infrastructure projects such as the Waterview Tunnel and the City Rail Link (CRL), as well as excavations in the city for high-rise building foundations. Most of these excavations are into Waitemata Group rock, and the material is usually loaded onto trucks, transported by road and dumped as fill or in former quarries.^{17,18} For example, the Waterview Tunnel project saw two twin tunnels driven mainly through weathered and unweathered Waitemata Group sedimentary rock. The approx. 800,000m³ of spoil (enough to fill 320 Olympic-sized swimming pools) that was excavated from the tunnels was transferred via a conveyor belt to the on-site storage facility. From there, the spoil was trucked to, and filled, the disused Wiri Quarry in Manukau, south Auckland.²⁰ The current CRL project in Auckland CBD involves tunnelling mainly through Waitemata Group sandstones and siltstone, and the removal of two million tonnes of spoil. Given the scale of these,²¹ and other earthworks in the Auckland region and the current uncertainty regarding the precise location and quantity of erionite in the rocks and soils, there is the potential for significant exposure of some of Auckland's population to erionite-bearing rock dust if appropriate dust management strategies are not carefully implemented. The extent of this risk needs urgently quantifying as there are likely to be significant differences in exposure risks between ground engineering workers in Auckland, and areas of Turkey where houses were constructed with erionite-bearing sandstone blocks, as demonstrated by studies in the US.¹⁰

Concluding remarks

A recent report¹ claimed that the elevated incidence of malignant mesothelioma in New Zealand is a direct result of exposure to airborne asbestos fibres in occupational settings. There is usually a long latency period (20–40 years) for MM between exposure and diagnosis.²² Importation and use of crude (raw) asbestos in New Zealand peaked in 1974,¹ yet cases of MM have increased almost exponentially since 1974 and remain high.² Some MM cases have been attributed not to direct occupational exposure to asbestos, but from the transfer of asbestos from the workplace to the home. Notwithstanding this, the potential effects of exposure through handling, use and disposal of erionite-bearing rock in both occupational and non-occupational settings in New Zealand remain unknown. The Auckland region is growing rapidly, including excavations for residential, infrastructure and transport works. The corollary is that the effects of airborne erionite need to be established. Indeed, further research on the source occurrence, and airborne transport of erionite would be advantageous, as well as epidemiological research to improve understanding of the extent of exposure to erionite in the population and who is most at risk. This could include developing testing regimes and occupational exposure limits, and then appropriate management of erionite exposure within a hierarchy of controls. Finally, if prediction of future peak MM incidence is based primarily on asbestos exposure and ignores exposure to erionite, then this could be painting an inaccurate picture of the likely future MM trends in the community.

Competing interests:

Nil.

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www.nzma.org.nz/journal-articles/erionite-in-auckland-bedrock-and-malignant-mesothelioma-an-emerging-public-and-occupational-health-hazard

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Submission form

(Form 13)

Submission on an application concerning resource consent that is subject to public notification by consent authority Sections 95A & 96 of the Resource Management Act 1991

SUBMISSIONS CLOSE AND MUST BE RECEIVED BY WAIKATO DISTRICT COUNCIL BY TUESDAY 16TH AUGUST 2022

To: Waikato District Council

Name of submitter (full name) Daisy Kate Thomas

This is a submission on an application from Gleeson Managed Fill Limited to establish and operate a managed fill disposal activity that imports material to deposit within identified gullies (Fill Areas 2-4) located north of an existing quarry within the same site. To undertake soil disturbance of a piece of land (within Fill Area 3) as per the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health at 310 Riverview Road HUNTLY

* I am am not a trade competitor for the purpose of Section 308B of the Resource Management Act 1991

* Select one

† I am am not # directly affected by an effect of the subject matter of the submission that

(a) adversely affects the environment; and

(b) does not relate to trade competition or the effects of trade competition

† Delete this paragraph if you are not a trade competitor

Select one

The specific parts of the application that my submission relates to are:

Give details (attach separate sheets if necessary):

The entire application.

.....

.....

.....

.....

.....

.....

I support oppose am neutral to the part/s named above.

Give details:

The reasons for my views are the countless effects it will have on the environment. The fact that they have no respect or morals as a company. They have not come to the neighbouring families/homes properties, mine included. I am scared for what the future may hold and there is no need for this!

.....

.....

.....

I seek the following decision from Waikato District Council: Approve Decline

Give precise details, including any parts of the application you wish to have amended and the general nature of any conditions sought.

The entire application I wish to be declined.

Number of additional sheets attached


I wish to be heard in support of my submission Yes No

If others make a similar submission, I will consider presenting a joint case with them at the hearing Yes No

Pursuant to section 100A of the Resource Management Act I request that you delegate your functions, powers and duties required to hear and decide the application to one or more hearings commissioners who are not members of the local authority Yes No

If you make a request under section 100A of the Resource Management Act, you must do so no later than 5 working days after the close of submissions and you may be liable to meet or contribute to the costs of the hearings commissioner or commissioners.

Signature of submitter of person authorized to sign on behalf of the submitter

 Date 14.08.22
A signature is not required if you make your submission by electronic means

Address 95A Hillside Heights Rd RD1 Postcode 3771

Email l.lvocker567@gmail.com Phone 0278961577

Contact person's name (name and designation if applicable) Daisy Thomas

This is the person and the address to which all communications from the Council about the submission will be sent

Note to Submitter

The closing date for serving submissions on the consent authority is the 20th working day after the date on which public or limited notification is given. If the application is subject to limited notification, the consent authority may adopt an earlier closing date for submissions once the consent authority receives responses from all affected persons

You must serve a copy of your submission on the applicant whose address for service is Paua Planning Ltd, Kate Madsen, 180 Bawden Road, RD 2, Albany 0792 or email kate@pauaplanning.co.nz as soon as reasonably practicable after you have served your submission to Waikato District Council

If you are a trade competitor, your right to make a submission may be limited by the trade competition provisions in Part 11A of the Resource Management Act 1991

Written Submission

Postal Address Waikato District Council, Private Bag 544, Ngaruawahia 3742
Telephone 0800 492 452

Email Submission

Consent.submissions@waidc.govt.nz

The information you have provided on this form is required so that your submission can be processed under the RMA, and your name and address will be publicly available. The information will be stored on a public register and held by the Council, and may also be made available to the public on the Council's website. In addition, any on-going communications between you and Council will be held at Council's offices and may also be accessed upon request by a third party. Access to this information is administered in accordance with the Local Government Official Information and Meetings Act 1987 and the Privacy Act 1993. If you have any concerns about this, please discuss with a Council Planner prior to lodging your submission. If you would like to request access to, or correction of your details, please contact the Council.

022

Submission on an application concerning resource consent that is subject to public notification by consent authority *Sections 95A & 96 of the Resource Management Act 1991*

SUBMISSIONS CLOSE AND MUST BE RECEIVED BY WAIKATO DISTRICT COUNCIL BY TUESDAY 16TH AUGUST 2022

To: Waikato District Council

Name of submitter (full name)

This is a submission on an application from Gleeson Managed Fill Limited to establish and operate a managed fill disposal activity that imports material to deposit within identified gullies (Fill Areas 2-4) located north of an existing quarry within the same site. To undertake soil disturbance of a piece of land (within Fill Area 3) as per the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health at 310 Riverview Road HUNTLY

*I am am not a trade competitor for the purpose of Section 308B of the Resource Management Act 1991

* Select one

† I am am not # directly affected by an effect of the subject matter of the submission that

- (a) adversely affects the environment; and
- (b) does not relate to trade competition or the effects of trade competition

†Delete this paragraph if you are not a trade competitor

Select one

The specific parts of the application that my submission relates to are:

Give details (attach separate sheets if necessary):

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I support oppose am neutral to the part/s named above.

Give details:

The reasons for my views are.....

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I seek the following decision from Waikato District Council: Approve Decline

Give precise details, including any parts of the application you wish to have amended and the general nature of any conditions sought.

.....

Number of additional sheets attached

I wish to be heard in support of my submission Yes No

If others make a similar submission, I will consider presenting a joint case with them at the hearing Yes No

Pursuant to section 100A of the Resource Management Act I request that you delegate your functions, powers and duties required to hear and decide the application to one or more hearings commissioners who are not members of the local authority Yes No

If you make a request under section 100A of the Resource Management Act, you must do so no later than 5 working days after the close of submissions and you may be liable to meet or contribute to the costs of the hearings commissioner or commissioners.

Signature of submitter of person authorized to sign on behalf of the submitter

..... **Date**

A signature is not required if you make your submission by electronic means

Address **Postcode**.....

Email **Phone**.....

Contact person's name (name and designation if applicable)

This is the person and the address to which all communications from the Council about the submission will be sent

Note to Submitter

The closing date for serving submissions on the consent authority is the 20th working day after the date on which public or limited notification is given. If the application is subject to limited notification, the consent authority may adopt an earlier closing date for submissions once the consent authority receives responses from all affected persons

You must serve a copy of your submission on the applicant whose address for service is Paua Planning Ltd, Kate Madsen, 180 Bawden Road, RD 2, Albany 0792 or email kate@pauaplanning.co.nz as soon as reasonably practicable after you have served your submission to Waikato District Council

If you are a trade competitor, your right to make a submission may be limited by the trade competition provisions in Part 11A of the Resource Management Act 1991

Written Submission

Postal Address Waikato District Council, Private Bag 544, Ngaruawahia 3742
 Telephone 0800 492 452

Email Submission

Consent.submissions@waidc.govt.nz

The information you have provided on this form is required so that your submission can be processed under the RMA, and your name and address will be publicly available. The information will be stored on a public register and held by the Council, and may also be made available to the public on the Council's website. In addition, any on-going communications between you and Council will be held at Council's offices and may also be accessed upon request by a third party. Access to this information is administered in accordance with the Local Government Official Information and Meetings Act 1987 and the Privacy Act 1993. If you have any concerns about this, please discuss with a Council Planner prior to lodging your submission. If you would like to request access to, or correction of your details, please contact the Council.

Gleeson Managed Fill Limited - Submission

This submission will address the current damage to roads and infrastructure caused by current activities by Gleeson & Cox and those proposed for Gleeson Managed Fill Limited as well as the impact these activities have on Huntly residents.

The damage to roading an infrastructure is extensive and extremely high cost, requiring extra maintenance in a number if key arterial routes within Huntly Central.

The impact that these maintenance activities and the state of the roading network from current Gleeson & Cox business activity is having more than a minor effect on the residents of Huntly.

Further activities as proposed by the resource consent application for Gleeson Managed Fill Limited to begin operations will increase these effects and further damage key infrastructure and increase the costs and negative impacts on residents.

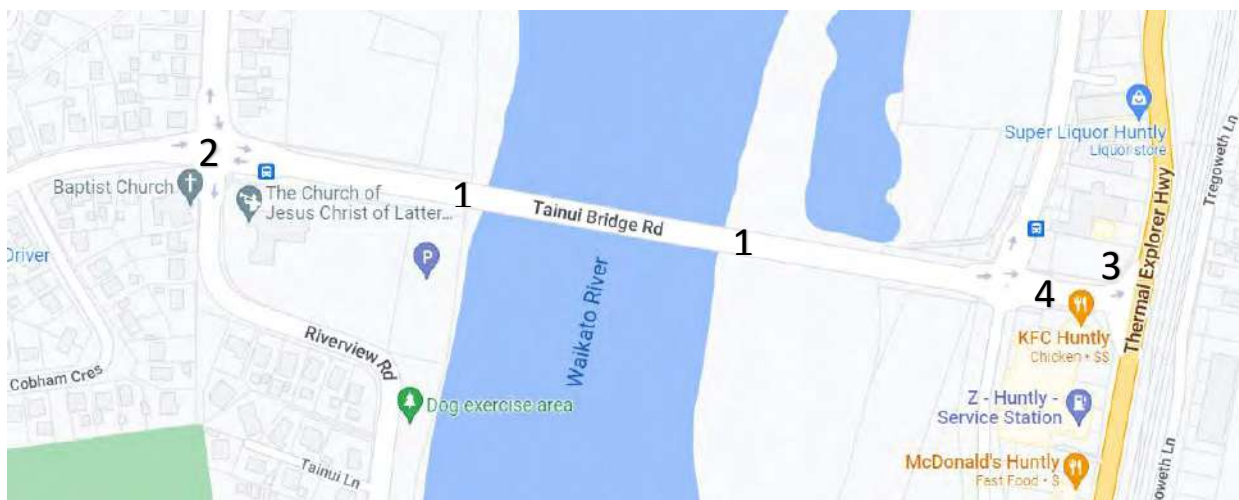
This submission will cover four key arterial aspects of road use in Huntly that relate to the above resource consent. While there are many other areas that are impacted in terms of damaged road surfaces, sub surfaces, build-up of cartage spillage and damages to roading infrastructure and assets, these four are clear examples of damages and inconvenience caused to residents that are well known to Huntly residents, Waikato District Council (WDC) and Gleeson & Cox.

1. Tainui Bridge
2. Roundabout connecting Tainui Bridge to Huntly West
3. Great South Road connecting to Tainui Bridge Road
4. Tainui Bridge Road connecting Great South Road to Tane Mahuta Drive/George Drive

Please understand that the issues discussed below are not limited to the above four areas, they are widespread along Riverview Road, Harris Street and Great South Road within the Huntly area.

We request that the commissioners consider the wider impact on the community based on these examples, a full report would cover too many pages for this lay person running a business to complete.

Map Showing areas Identified



1. Tainui Bridge

Currently the Rate payers of the Waikato District are footing the bill to repair the Tainui Bridge bearings that have failed due to the weight and excessive quantity of trucks using it.

There have been regular closures on Sunday's inconveniencing residents on their Sunday movements – these have been ongoing for over 18 months. Additionally, the speed was reduced to 30 for several months also, which caused confusion and upset among residents, with some ignoring the lowered speed limit including Gleeson & Cox trucks.

One example is the elderly unable to get to church without relying on others, changing transport plans only to find there is no issue or work never started. Other access points are available in Ngaruawahia and Rangiriri, both a good 25 to 26-minute diversion (when no traffic applies) and many elderly who are impacted cannot afford the excess fuel or are not confident driving outside of their everyday routes. Please note Gleeson & Cox are not impacted by these closures as they do not work on Sundays.

Cost to remedy - \$800,000 to repair the bearings for the bridge and this work will take some time – Gleeson & Cox should pay for this (including planning and traffic management), council is very experienced with maintenance, this cost would have been accounted for in regular long-term planning had it been needed without the excess heavy vehicles. This is an excess item – and needs to be charged to the biggest (heaviest) users who make profit from their activities that are negatively affecting the lives of locals.

Our rates have gone up for other essential and legitimate reasons, corporate subsidies should not be one of them!

How often will the bridge be closed? When will this work be needed again?

Can the work be done at night?

For this reason, the resource consent is **opposed**.

Mitigation Option:

Requiring Gleeson & Cox and Gleeson Managed Fill to build their own bridge and leave ours for the use of everyday residents.

Alternative Option:

Gleeson & Cox and Gleeson Managed Fill agree with Waikato District Council (WDC) to supply funds in advance to a dedicated WDC roading fund to enable maintenance of all roads and bridges used in activities associated with the companies and that of any future associate companies. The impact on residents of the local area is to be kept to the absolute minimum by conducting works overnight to ensure the roads and bridges are easy and safe for residents when they need them.

2. Roundabout connecting Tainui bridge to Huntly West

The round about connecting Tainui Bridge Road to Huntly West regularly has corrugation of the seal, potholes, spillage and build-up of cartage materials due to excess heavy vehicles using it.

This roundabout is the only direct vehicle entrance to Huntly West and a large surrounding area from the main township which hold key services for residents, such as supermarkets and service stations. While it is convenient and efficient to use, it is regularly needing attention with surfaces being repaired or replaced.

Additionally, there is a significant amount of gravel accumulating in this space. Loose gravel and cartage spillage damages the road surface, reduces the effectiveness of the drainage and causes a potential safety hazard to both motorists and pedestrians.



Gravel builds up on pedestrian access, also covering road markings

The impact of this damage is regular maintenance is required, causing traffic blockages on the major access point to Huntly West. Additionally, drivers will often use the outside of the roundabout (as though it is a two-lane roundabout) rather than the corrugated inside lane or will swerve to avoid potholes that develop, and this can give an incorrect indication of an exiting vehicle when in fact they are continuing on the roundabout (indicators are poorly used throughout New Zealand on roundabouts – not just here). Such use then flicks up the waste material on the outer rim of the roundabout hitting other cars and pedestrians and potentially causing vehicles to slide on the loose material when it is unexpected. School students as well as other residents walk or use mobility aids along this route to school, town, supermarket or the bus stop on Tainui Bridge Road.

This combined situation can cause near misses, when waiting cars pull onto the roundabout anticipating they have right of way but do not (because a vehicle is on the outside of the roundabout) – by then it is too late, I have seen several near misses like this and an accident. I travel this route regularly for work.



Gravel builds up on and around traffic islands causing a hazard for all users



Significant gravel builds up covering road markings, being thrown up onto traffic island

Cost to remedy – Gleeson & Cox should pay for remedies to pavement, regular curb and channel cleaning and road sweeping each time it is needed, and it should be completed at night when it will have the least impact on local everyday traffic, and with all associated costs including traffic management also paid for by Gleeson & Cox.

For these reasons, the resource consent is **opposed**.

Mitigation Option:

Requiring Gleeson & Cox and Gleeson Managed Fill to source their own access point to Huntly West and leave ours for the use of everyday residents, not an Auckland based corporate entity that damages key public infrastructure with no recourse or respect.

Alternative Option:

Gleeson & Cox and Gleeson Managed Fill agree with Waikato District Council (WDC) to supply funds in advance to a dedicated WDC roading fund to enable maintenance of all roads and bridges used in activities associated with the companies and that of any future associate companies. The impact on residents of the local area is to be kept to the absolute minimum by conducting works overnight to ensure the roads and bridges are easy and safe for residents when they need them.

This work should include supplementary gutter and drainage cleaning on a fortnightly schedule to reduce the hazard to all road users and pedestrians, including immediate spillage clean up.

3. Great South Road connecting to Tainui Bridge Road

The intersection of Great South Road and Tainui Bridge Road regularly has a large bulge and/or pothole caused by excessive heavy traffic turning from the southbound lane into Tainui Bridge Road.

The pavement gets pushed into mounds with a large dip being created on one side – at times the mound can get high enough to hit the bottom of cars. In addition, a large dip formed often ends up as a pothole, growing rapidly with the extra heavy vehicles.

This can and has damaged people's private vehicles, to the point where the council painted the bulges white in the most recent iteration to warn motorists of the hazard (they looked like a badly made speed hump!). Waikato District Council is well aware of this issue and the impact the heavy vehicles have in this area, and the number of complaints from impacted residents.

Similarly, there is often a pothole on Great South Road where heavy vehicles turn onto the road from Tainui Bridge Road. This is the same cause in the opposite direction. The pavement has also needed repair where the heavy vehicles wait for the lights to allow them to turn from the south bound lane into Tainui Bridge Road. (Unable to photograph for safety reasons)



Pothole – a regular at entrance onto North bound lane of Great South Road from Tainui Bridge Road, this is on the merge lane and swerving to avoid it can cause issues

The remedy of this damage to the surface of the roads takes a long time to get fixed with the damage growing each day it is not repaired. Remedial works impact on the local residents going about their daily tasks and also causes driving frustration when vehicles attempt to avoid these potholes often confusing and frightening other drivers based on the apparently erratic driving.

Cost to Remedy – Gleeson & Cox should pay for this remedy each time it is needed, and it should be completed at night when there is less local everyday traffic, and with all associated costs including traffic Management also paid for by Gleeson & Cox.

For these reasons, the resource consent is **opposed**.

Mitigation Option:

Requiring Gleeson & Cox and Gleeson Managed Fill to source their own access point to Huntly West from Great South Road and leave ours for the use of everyday residents.

Alternative Option:

Gleeson & Cox and Gleeson Managed Fill agree with Waikato District Council (WDC) to supply funds in advance to a dedicated WDC roading fund to enable maintenance of all roads and bridges used in activities associated with the companies and that of any future associate companies. The impact on residents of the local area is to be kept to the absolute minimum by conducting works overnight to ensure the roads and bridges are easy and safe for residents when they need them.

4. Tainui Bridge Road connecting Great South Road to Tane Mahuta Drive/George Drive

Tainui Bridge Road between the intersections with Tane Mahuta Drive/George Drive and Great South Road has a persistent pavement issue that grows by the day, which is exacerbated by excess heavy traffic flows.

This small length of road has a significant amount of use by both locals and visitors to our town. Major flows of resident traffic come from the Countdown Supermarket, southbound traffic through the Main Street and also the majority of visitors to the very popular McDonalds Restaurant. Many Mobil and Shell fuel station visitors also use it as well as being the main access point to Huntly West.

What started as a small pothole a few years ago has turned into both a traffic hazard but also a major eye saw and health and safety hazard. The road at this point exiting the roundabout is wide enough to be two lanes allowing one to turn left (heading north) when Great South Road is clear, and one to queue at the lights to turn Right (heading south) when the lights allow. There is also an entrance to the food retailers and Shell station forecourt off this short stretch of road Multiple near misses have been witnessed as people driving here have attempted to avoid the pothole that develops.



Three patches on road impacted by heavy vehicles, gravel covering road markings

With this pothole many users leave the roundabout in the left lane to avoid hitting the pothole, then quickly switching to the right lane which is their preferred direction. Additionally, the road crew are often seen throwing shovels of hot mix into the hole with their backs to the oncoming traffic – attempting to do this in the gaps with no spotters, no cones, no compression and no effect – the hole being bigger the very next day.

Latest update – patch in road covering both lanes been repaired, along with another small patch and a long strip at light waiting area.



Large Patch from a small pothole – Tainui Bridge Road



Small patch on Tainui Bridge Road



Long Strip at waiting area for lights – this is similar in the South bound lane on Great South Road – unable to photograph due to safety reasons.

Cost to Remedy – Gleeson & Cox should pay for this remedy each time it is needed, and it should be completed at night when there is less local everyday traffic, and with all associated costs including traffic Management also paid for by Gleeson & Cox.

For these reasons, the resource consent is **opposed**.

Mitigation Option:

Requiring Gleeson & Cox and Gleeson Managed Fill to develop their own crossing of the river that does not use these critical link public roads.

Alternative Option:

Gleeson & Cox and Gleeson Managed Fill agree with Waikato District Council (WDC) to supply funds in advance to a dedicated WDC roading fund to enable maintenance of all roads and bridges used in activities associated with the companies and that of any future associate companies. The impact on residents of the local area is to be kept to the absolute minimum by conducting works overnight to ensure the roads and bridges are easy and safe for residents when they need them.

Summary

As residents of the Huntly area impacted daily, we respectfully request the commissioners to require Gleeson & Cox to take responsibility for the damage their activities cause to our roads.

Requiring funding to be supplied to Waikato District Council for the maintenance excesses and all damage exacerbated by the excess heavy vehicle traffic that their activities cause to infrastructure and community assets.

The application for resource consent by Gleeson Managed Fill Limited is **Opposed** unless significant mitigants can be put in place to:

1. Remove the costs of these road and infrastructure damaging activities caused by Gleeson & Cox and the proposed Gleeson Managed Fill Limited activities from Waikato District Council and its rate payers, placing it firmly on the companies that profit from the activities causing the damage – make the user pay the true cost of business.
2. Significantly reduce the impacts on local road users in terms of safety, security of passage and convenience to be able to use the roads paid for by local rate payers when desired.

The best way to achieve the above two mitigations may be to:

3. Require Gleeson & Cox and Gleeson Managed Fill Limited to construct their own river crossing to avoid the impact on the current assets provided for public use

We do not wish to support businesses in the community that negatively impact residents' everyday life, financial situations, interrupting day to day activities and increasing the workload for a very busy Waikato District Council and it's contractors.

Thank you for your consideration of these matters,

Tiffany Whyte



Submission form

(Form I3)

Submission on an application concerning resource consent that is subject to public notification by consent authority Sections 95A & 96 of the Resource Management Act 1991

SUBMISSIONS CLOSE AND MUST BE RECEIVED BY WAIKATO DISTRICT COUNCIL BY TUESDAY 16TH AUGUST 2022

To: Waikato District Council

Name of submitter (full name) Seli Salazararaba Scotts

This is a submission on an application from Gleeson Managed Fill Limited to establish and operate a managed fill disposal activity that imports material to deposit within identified gullies (Fill Areas 2-4) located north of an existing quarry within the same site. To undertake soil disturbance of a piece of land (within Fill Area 3) as per the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health at 310 Riverview Road HUNTLY

* I am am not a trade competitor for the purpose of Section 308B of the Resource Management Act 1991

* Select one

† I am am not # directly affected by an effect of the subject matter of the submission that

- (a) adversely affects the environment; and
- (b) does not relate to trade competition or the effects of trade competition

† Delete this paragraph if you are not a trade competitor

Select one

The specific parts of the application that my submission relates to are:

Give details (attach separate sheets if necessary):

Gleeson managed Fill Limited to establish and operate a managed fill disposal activity that imports material to deposit within identified gullies. This is an environmental disaster. The gullies is about less than 200m from the Waikato River. We can't just bury import material and think that it will not affect living things.

I support oppose am neutral to the part/s named above.

Give details:

The reasons for my views are.....

I live about 200m from the quarry and I absolutely oppose the import material. The big trucks travelling @ 100m/km is outrageous. The trucks shakes the house when travelling @ that speed. Please think of the environment. Who assess what material should be in fill.

I seek the following decision from Waikato District Council: Approve Decline

Give precise details, including any parts of the application you wish to have amended and the general nature of any conditions sought.

This is just a phase to let people know that the council has informed the people ^{could be} affected by such nonsense.

This is a waste of tax payers money.
Why doesn't the Waikato District plan on installing a

Number of additional sheets attached

bump on the road between Glendon Quarry - Hurthly town before bridge

I wish to be heard in support of my submission

Yes No

If others make a similar submission, I will consider presenting a joint case with them at the hearing

Yes No

Pursuant to section 100A of the Resource Management Act I request that you delegate your functions, powers and duties required to hear and decide the application to one or more hearings commissioners who are not members of the local authority

Yes No

If you make a request under section 100A of the Resource Management Act, you must do so no later than 5 working days after the close of submissions and you may be liable to meet or contribute to the costs of the hearings commissioner or commissioners.

Signature of submitter of person authorized to sign on behalf of the submitter

Scutts Date 16.08.22

A signature is not required if you make your submission by electronic means

Address 206 Riverview Rd Postcode 3700

Email seliertfi.co.nz Phone 021 742341

Contact person's name (name and designation if applicable) Selie Scutts

This is the person and the address to which all communications from the Council about the submission will be sent

Note to Submitter

The closing date for serving submissions on the consent authority is the 20th working day after the date on which public or limited notification is given. If the application is subject to limited notification, the consent authority may adopt an earlier closing date for submissions once the consent authority receives responses from all affected persons

You must serve a copy of your submission on the applicant whose address for service is Paua Planning Ltd, Kate Madsen, 180 Bawden Road, RD 2, Albany 0792 or email kate@pauaplanning.co.nz as soon as reasonably practicable after you have served your submission to Waikato District Council

If you are a trade competitor, your right to make a submission may be limited by the trade competition provisions in Part 11A of the Resource Management Act 1991

Written Submission

Postal Address Waikato District Council, Private Bag 544, Ngaruawahia 3742

Telephone 0800 492 452

Email Submission

Consent.submissions@waidc.govt.nz

The information you have provided on this form is required so that your submission can be processed under the RMA, and your name and address will be publicly available. The information will be stored on a public register and held by the Council, and may also be made available to the public on the Council's website. In addition, any on-going communications between you and Council will be held at Council's offices and may also be accessed upon request by a third party. Access to this information is administered in accordance with the Local Government Official Information and Meetings Act 1987 and the Privacy Act 1993. If you have any concerns about this, please discuss with a Council Planner prior to lodging your submission. If you would like to request access to, or correction of your details, please contact the Council.

Submission on an application concerning resource consent that is subject to public notification by consent authority *Sections 95A & 96 of the Resource Management Act 1991*

SUBMISSIONS CLOSE AND MUST BE RECEIVED BY WAIKATO DISTRICT COUNCIL BY TUESDAY 16TH AUGUST 2022

To: Waikato District Council

Name of submitter (full name)

This is a submission on an application from Gleeson Managed Fill Limited to establish and operate a managed fill disposal activity that imports material to deposit within identified gullies (Fill Areas 2-4) located north of an existing quarry within the same site. To undertake soil disturbance of a piece of land (within Fill Area 3) as per the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health at 310 Riverview Road HUNTLY

*I am am not a trade competitor for the purpose of Section 308B of the Resource Management Act 1991

* Select one

† I am am not # directly affected by an effect of the subject matter of the submission that

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- (b) does not relate to trade competition or the effects of trade competition

†Delete this paragraph if you are not a trade competitor

Select one

The specific parts of the application that my submission relates to are:

Give details (attach separate sheets if necessary):

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I support oppose am neutral to the part/s named above.

Give details:

The reasons for my views are.....

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I seek the following decision from Waikato District Council: Approve Decline

Give precise details, including any parts of the application you wish to have amended and the general nature of any conditions sought.

.....

Number of additional sheets attached

I wish to be heard in support of my submission Yes No

If others make a similar submission, I will consider presenting a joint case with them at the hearing Yes No

Pursuant to section 100A of the Resource Management Act I request that you delegate your functions, powers and duties required to hear and decide the application to one or more hearings commissioners who are not members of the local authority Yes No

If you make a request under section 100A of the Resource Management Act, you must do so no later than 5 working days after the close of submissions and you may be liable to meet or contribute to the costs of the hearings commissioner or commissioners.

Signature of submitter of person authorized to sign on behalf of the submitter

..... Date

A signature is not required if you make your submission by electronic means

Address Postcode.....

Email Phone.....

Contact person's name (name and designation if applicable)

This is the person and the address to which all communications from the Council about the submission will be sent

Note to Submitter

The closing date for serving submissions on the consent authority is the 20th working day after the date on which public or limited notification is given. If the application is subject to limited notification, the consent authority may adopt an earlier closing date for submissions once the consent authority receives responses from all affected persons

You must serve a copy of your submission on the applicant whose address for service is Paua Planning Ltd, Kate Madsen, 180 Bawden Road, RD 2, Albany 0792 or email kate@pauaplanning.co.nz as soon as reasonably practicable after you have served your submission to Waikato District Council

If you are a trade competitor, your right to make a submission may be limited by the trade competition provisions in Part 11A of the Resource Management Act 1991

Written Submission

Postal Address Waikato District Council, Private Bag 544, Ngaruawahia 3742
 Telephone 0800 492 452

Email Submission

Consent.submissions@waidc.govt.nz

The information you have provided on this form is required so that your submission can be processed under the RMA, and your name and address will be publicly available. The information will be stored on a public register and held by the Council, and may also be made available to the public on the Council's website. In addition, any on-going communications between you and Council will be held at Council's offices and may also be accessed upon request by a third party. Access to this information is administered in accordance with the Local Government Official Information and Meetings Act 1987 and the Privacy Act 1993. If you have any concerns about this, please discuss with a Council Planner prior to lodging your submission. If you would like to request access to, or correction of your details, please contact the Council.

Submission form

(Form 13)

Submission on an application concerning resource consent that is subject to public notification by consent authority Sections 95A & 96 of the Resource Management Act 1991

SUBMISSIONS CLOSE AND MUST BE RECEIVED BY WAIKATO DISTRICT COUNCIL BY TUESDAY 16TH AUGUST 2022

To: Waikato District Council

Name of submitter (full name) **Freeway Design Limited**

This is a submission on an application from Gleeson Managed Fill Limited to establish and operate a managed fill disposal activity that imports material to deposit within identified gullies (Fill Areas 2-4) located north of an existing quarry within the same site. To undertake soil disturbance of a piece of land (within Fill Area 3) as per the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health at 310 Riverview Road HUNTLY

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 * Select one

† I am am not # directly affected by an effect of the subject matter of the submission that
 (a) adversely affects the environment; and
 (b) does not relate to trade competition or the effects of trade competition

†Delete this paragraph if you are not a trade competitor
 # Select one

The specific parts of the application that my submission relates to are:

Give details (attach separate sheets if necessary):

See attached.

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I support oppose am neutral to the part/s named above.
 Give details:

The reasons for my views are..... **See attached.**

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I seek the following decision from Waikato District Council: Approve Decline

Give precise details, including any parts of the application you wish to have amended and the general nature of any conditions sought.

See attached.

Number of additional sheets attached

I wish to be heard in support of my submission Yes No

If others make a similar submission, I will consider presenting a joint case with them at the hearing Yes No

Pursuant to section 100A of the Resource Management Act I request that you delegate your functions, powers and duties required to hear and decide the application to one or more hearings commissioners who are not members of the local authority Yes No

If you make a request under section 100A of the Resource Management Act, you must do so no later than 5 working days after the close of submissions and you may be liable to meet or contribute to the costs of the hearings commissioner or commissioners.

Signature of submitter of person authorized to sign on behalf of the submitter



Date 16/08/2022

A signature is not required if you make your submission by electronic means

Address Quay Chambers, Level 7, 2 Commerce Street, Auckland Postcode 1010

Email littlejohn@quaychambers.co.nz Phone 09 374 1669

Contact person's name (name and designation if applicable) Kitt Littlejohn (Barrister)

This is the person and the address to which all communications from the Council about the submission will be sent

Note to Submitter

The closing date for serving submissions on the consent authority is the 20th working day after the date on which public or limited notification is given. If the application is subject to limited notification, the consent authority may adopt an earlier closing date for submissions once the consent authority receives responses from all affected persons

You must serve a copy of your submission on the applicant whose address for service is Paua Planning Ltd, Kate Madsen, 180 Bawden Road, RD 2, Albany 0792 or email kate@pauaplanning.co.nz as soon as reasonably practicable after you have served your submission to Waikato District Council

If you are a trade competitor, your right to make a submission may be limited by the trade competition provisions in Part 11A of the Resource Management Act 1991

Written Submission

Postal Address Waikato District Council, Private Bag 544, Ngaruawahia 3742
Telephone 0800 492 452

Email Submission

Consent.submissions@waidc.govt.nz

The information you have provided on this form is required so that your submission can be processed under the RMA, and your name and address will be publicly available. The information will be stored on a public register and held by the Council, and may also be made available to the public on the Council's website. In addition, any on-going communications between you and Council will be held at Council's offices and may also be accessed upon request by a third party. Access to this information is administered in accordance with the Local Government Official Information and Meetings Act 1987 and the Privacy Act 1993. If you have any concerns about this, please discuss with a Council Planner prior to lodging your submission. If you would like to request access to, or correction of your details, please contact the Council.

16 August 2021

Submission on Gleeson Managed Fill Limited's application for resource consent at 310 Riverview Road, Huntly (Ref: LUC0488/22)

To: Waikato District Council

Submitter Details:

Freeway Design Limited ("**Submitter**")
59 Rimu Street,
New Plymouth 4312

The Submitter is not a trade competitor for the purpose of Section 308B of the Resource Management Act 1991.

Introduction

The Submitter is the owner of the property at 343 Tregoweth Lane, Huntly, where the Submitter operates the Hillside and Nature Resort ("**Hillside Hotel**"). Established in 2003, the Hillside Hotel is a 4-star hotel gently nestled into the hillside bush and constructed of pine milled off the land which the hotel sits on, offering its guests a return to nature experience.

The Submitter was notified as part of the public notification process of Gleeson Managed Fill Limited's resource consent application (LUC0488/22). The Gleeson Quarries sit across the Waikato River from the Submitter's property, with Great South Road/part of the Thermal Explorer Highway running alongside the Waikato River between the Submitter's property and the quarry.

Application Details

Gleeson Managed Fill Limited ("**Applicant**") operates the existing quarry at 310 Riverview Road, Huntly ("**Site**") and the Submitter understands that the application for resource consent is to enable the Applicant to:

- Establish and operate a managed fill disposal activity that imports material to deposit within identified gullies (Fill Areas 2-4) within the same site; and
- Undertake soil disturbance of a piece of land (within Fill Area 3) as per the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health.

Submission Details

The Submitter opposes the application by the Applicant to allow for increased activity at the Site and soil disturbance.

In particular, the Submitter has concerns about the following matters relating to the application:

- Traffic and transportation related effects
- Dust discharges into the air
- Noise effects

Traffic effects and access to Tregoweth Lane

The Hillside Hotel is located just off State Highway 1. Its proximity to Auckland, Tauranga, Rotorua and Hamilton is one of its appeals as a destination for international and domestic tourists alike. From State Highway 1, the Hillside Hotel can be accessed from Great South Road, via Tregoweth Lane in Huntly.

The Submitter is concerned that the proposed activity will significantly increase the volume of heavy trucks accessing the cleanfill from Great South Road via Tainui Bridge Road, impacting on the access to the Submitter's hotel. This impact could only be addressed by preventing cleanfill trucks accessing Riverside Road via Tainui Bridge Road.

Dust discharge into the air

Given its elevated location, the Hillside Hotel boasts panoramic views of the Waikato, from Mount Ruapheu on a clear day in the south, and north to the Bombay hills. The Hillside Hotel is marketed as a nature resort for guests to experience the outdoors and fresh air outside of the main urban centres.

During the drier months in summer, the large trucks carrying fill materials to and from the Site causes discharge of soil and dust into the air along Great South Road, which would affect the views and outlook from the Hillside Hotel as well as disrupt the nature experience of the guests.

The Submitter considers that strict limits should be imposed to require the cleanfill to control all dust generated on-site within the site and avoid deposition of soil etc on Great South Road.

Noise effects

Again, given its elevated location, the Submitter's hotel is susceptible to noise effects from activities located some distance away. Strict conditions controlling the noise of equipment and activities on site should be imposed.

To: Waikato District Council

**Submission by Transpower New Zealand Limited on the Publicly
Notified Resource Consent Application (Ref: LUC0488/22) –
Gleeson Managed Fill Limited**

16 August 2022

Keeping the energy flowing



Address for Service:

Transpower New Zealand Ltd
PO Box 21154, Edgware
Christchurch 8143
Attention: Andy Eccleshall
Senior Environmental Planner
Ph: (04) 590 8687
Email: Andy.Eccleshall@transpower.co.nz

1. INTRODUCTION

- 1.1** This document and appendices form part of Transpower New Zealand Limited's (Transpower) submission to Waikato District Council on the proposal by Gleeson Managed Fill Limited to establish and operate a managed fill disposal activity at 310 Riverview Road, Huntly. The proposed fill disposal activity will import overburdened quarrying material and construction and demolition material (which may include Asbestos Containing Materials) to deposit up to 300,000m³ annually to an estimated capacity of 2,009,200m³. The proposed activity commences in Fill Area 2 and progresses through to Areas 3 and 4 as shown within the application material.
- 1.2** Transpower is the State-Owned Enterprise that plans, builds, maintains, and operates New Zealand's high voltage transmission network - The National Grid. The National Grid comprises around 12,000 km of transmission lines and cables, and some 164 substations. It links generators to distribution companies and major industrial users from Kaikohe in the North Island, to Tiwai Point in the South Island. Transpower's principal role is to ensure the reliable supply of electricity throughout the country and, therefore, has a significant interest in ensuring that development does not adversely affect the operation, maintenance, upgrading and development of the existing transmission network.
- 1.3** Several Transpower assets are located within the area of the proposal as shown on the map at **Appendix A**. These include:
- The HAM-MER-A 110kV Transmission line and various support structures; and
 - The HAM-MER-B 110kV Transmission line and various support structures.
- 1.4** Transpower's interest in the proposal relates to ensuring that the operation, maintenance, upgrading and development, of the National Grid is not compromised by the proposal and that any works around the National Grid assets are carried out safely.
- 1.5** Transpower acknowledges that Paua Planning, on behalf of Gleeson Managed Fill limited, contacted Transpower in 2019 regarding the proposal and to understand the potential effects of the proposed activities on the National Grid infrastructure located in proximity. Transpower provided written approval to the proposal in December of 2019. The written approval and records of correspondence with Transpower are provided in Appendix 18.6 of the resource consent application. No further contact has been made with Transpower since that time.
- 1.6** From a review of the resource consent application "Assessment of Environmental Effects Proposed Overburden and Managed Fill Activity Riverview Road Huntly" prepared by Paua Planning dated 12 July 2022 (for notification), the plan of the Proposed Internal Access Roads provided in Appendix 2.5 titled "Gleeson Quarries Ltd – Huntly Quarry Proposed Fill Sites – General Site Plan" and dated 29 July 2019, appears inconsistent with the corresponding plan titled "Figure 1: Proposed Managed Fill Areas (Fill Area 2, 3 and 4) (undated), signed by Transpower on 12 December 2019, and provided in Appendix 18.6 of the application.
- 1.7** The main inconsistency relates to the additional length of indicative internal access road and the tip head into proposed Fill Area 5 (FA5) shown on the "Gleeson Quarries Ltd – Huntly Quarry Proposed Fill Sites – General Site Plan", dated 29 July 2019 and provided in Appendix 2.5. These features were not shown on the plan "Figure 1: Proposed Managed Fill Areas (Fill Area 2, 3 and 4)" signed by Transpower.

- 1.8** Section 6.2.1 of the Assessment of Environmental Effects (AEE) notes that FA5 was consented previously (LUC0176/20) and the establishment and operation of FA5 does not form part of the scope of this application. However, from our review of the AEE and accompanying documents, the indicative internal access roads through the site to the Fill Management Areas, including to FA5, are within the scope of the subject application.
- 1.9** From the information provided with the resource consent application, specifically the plan set in Appendix 2, it is not possible to confirm the existing horizontal clearance distance from the additional section of the internal access road to FA5 and the proposed FA5 tip head to the HAMMER-B 110kV National Grid transmission lines, although it appears to be in the order of approximately 20-25m. Additionally, as the available vertical clearance varies along the transmission lines depending on ground levels, without specific details, it is not possible for Transpower to accurately determine ground to conductor heights / clearance in proximity to the transmission line. Transpower is therefore unable to confirm with certainty whether the National Grid assets will be potentially impacted by the proximity of the proposed internal access road to FA5 and the proximity of the tip head to the transmission line.
- 1.10** Transpower's general position is that it is neutral in relation to the proposal. However, Transpower has lodged this submission to ensure that appropriate conditions are imposed on any resource consent granted for the proposal which protect the National Grid.

2. STATUTORY CONTEXT

National Policy Statement on Electricity Transmission 2008 (NPSET)

- 2.1** Under the Resource Management Act 1991 (RMA), the National Grid is recognised as a significant physical resource that must be sustainably managed, and any adverse effects on that infrastructure must be avoided, remedied or mitigated. The NPSET confirms the national significance of the National Grid and the need to appropriately manage activities and development under, and close to it.
- 2.2** The Objective of the NPSET is as follows:
- To recognise the national significance of the electricity transmission network by facilitating the operation, maintenance and upgrade of the existing transmission network and the establishment of new transmission resources to meet the needs of present and future generations, while:*
- *Managing the adverse environmental effects of the network; and*
 - *Managing the adverse effects of other activities on the network.*
- 2.3** The NPSET contains 14 Policies. In particular, Policy 2 of the NPSET requires decision-makers to recognise and provide for the effective operation, maintenance, upgrading and development of the electricity transmission network. Whilst Policy 10 requires that all decision-makers: *"to the extent reasonably possible manage activities to avoid reverse sensitivity effects on the electricity transmission network and to ensure that operation, maintenance, upgrading, and development of the electricity transmission network is not compromised."*
- 2.4** In 2017, the High Court¹ emphasised the strength of Policy 10, stating:

¹ Paragraph 85, High court interim judgement of Justice Wylie in *TRANSPower NEW ZEALAND LTD v AUCKLAND COUNCIL* [2017] NZHC 281 [28 February 2017]

“[85] Policy 10, though subject to the “reasonably possible” proviso, is, in my judgment, relatively prescriptive. It requires that decision-makers “must” manage activities to avoid reverse sensitivity effects on the electricity transmission network, and “must” ensure that the operation, maintenance, upgrading and development of the electricity transmission network is not compromised. What is sought to be protected is the national electricity transmission grid – an asset which the NPSET recognises is of national significance. A mandatory requirement to ensure that an asset of national significance is not compromised is, in my judgment, a relatively strong directive.”

The New Zealand Electrical Code of Practice for Electrical Safe Distances - NZECP 34:2001 (NZECP)

- 2.5** The National Grid is subject to various operational and engineering requirements that dictate how other activities are undertaken in relation to the National Grid, including the requirements of NZECP.
- 2.6** NZECP is a mandatory code of practice pursuant to the Electricity Act 1992 which sets minimum safe distances from overhead transmission lines to protect persons, property, vehicles and mobile plant from harm or damage from electrical hazards. The Code establishes safe clearance distances to buildings and structures, the ground (including stockpiles of earth and filling activities), and other lines, as well as how close buildings, structures and excavations can occur to poles and towers. All proposed works must comply with the NZECP requirements.

3. MATTERS OF INTEREST TO TRANSPOWER

- 3.1** In accordance with Policies 2 and 10 of the NPSET, Transpower’s interest in the proposal is to ensure that the operation, maintenance, upgrading and development of the existing National Grid is not compromised and that any development and construction works around the National Grid are carried out safely.

NZECP34:2001 Safe Separation Distances - Land Disturbance and Mobile Plant Operation

- 3.2** The appropriate management of any land disturbance or construction related activities around Transpower’s National Grid transmission lines, including support structures, is critical for security of supply to the National Grid and providing for the health and safety of those undertaking the works. Such activities undertaken in proximity to the National Grid must comply with the safe separation distances set out in NZECP. As outlined above, from the plans of the proposed internal access roads through the site, Transpower is unable to confirm with certainty whether the National Grid assets will be potentially impacted by the proximity of the proposed internal access road to FA5 and the location of the proposed tip head in relation to the HAM-MER-B 110kV National Grid transmission line.
- 3.3** Mobile plant and machinery, such as excavators, hi-abs and cranes, have the potential to reach up to, or above, the height of the conductors. In Transpower's experience, mobile plant and other vehicles working in proximity to transmission lines pose a real and significant risk. It is essential that the use and location of this machinery is carefully considered to avoid contact with the conductors. Coming into close proximity to a live conductor and causing a flashover (i.e. the flashover will occur prior to contact) can:
- Compromise the safety of the machinery operators, workers, or members of the public in or near the machinery and result in electric shock;
 - Damage the machinery or the line itself; and

- Affect the operation of the National Grid and the security of supply.

3.4 All land disturbance and mobile plant operation in proximity to the National Grid must comply with the minimum safe clearance distances set out in NZECP relating to works in proximity to conductors and towers. In particular, Table 4 sets out ground to conductor clearances that must be maintained during earthworks activities.

4. CONSENT CONDITIONS

4.1 Transpower considers that the aspects of the proposal outlined above, which have the potential to result in adverse effects on the National Grid assets, can be addressed through conditions placed on the land use resource consent. Transpower requests the conditions set out in **Appendix B** of this submission are included as part of any resource consent granted for the proposal.

5. DECISION / RELIEF SOUGHT

5.1 Transpower seeks a decision that ensures that the operation, maintenance, upgrading and future development of National Grid infrastructure is protected from the potential adverse effects of the proposal.

5.2 Transpower requests that appropriate conditions relating to the matters raised in this submission are imposed on any resource consents granted for the proposal.

5.3 Transpower would be happy to work with Gleeson Managed Fill Limited during the implementation of any resource consents granted for the proposal to ensure the proposed activities comply with the requirements of NZECP and that Transpower's National Grid assets are appropriately protected.

Dated at Christchurch on 16 August 2022

Rachel Purdy
Principal Planner
Tonkin + Taylor Ltd

Ph: (09) 356 7895 / Email: RPurdy@tonkintaylor.co.nz

Approved for Release by Transpower NZ Ltd:



Andy Eccleshall
Senior Environmental Planner
Transpower New Zealand Limited
(Authorised to sign on behalf of Transpower NZ Ltd)

Ph: (04) 590 8687 / Email: Andy.Eccleshall@transpower.co.nz

Appendices:

Appendix A: Map of Transpower assets

Appendix B: Recommended condition set

Copy Served to:

Paua Planning Limited

C/- Kate Madsen

180 Bawden Road, RD 2,

Albany 0792

kate@pauaplanning.co.nz

Appendix A:
Map of Transpower Assets



TRANSPOWER

310 RIVERVIEW ROAD, HUNTLY

Legend

Maximo Assets

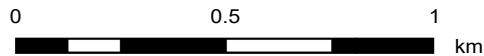
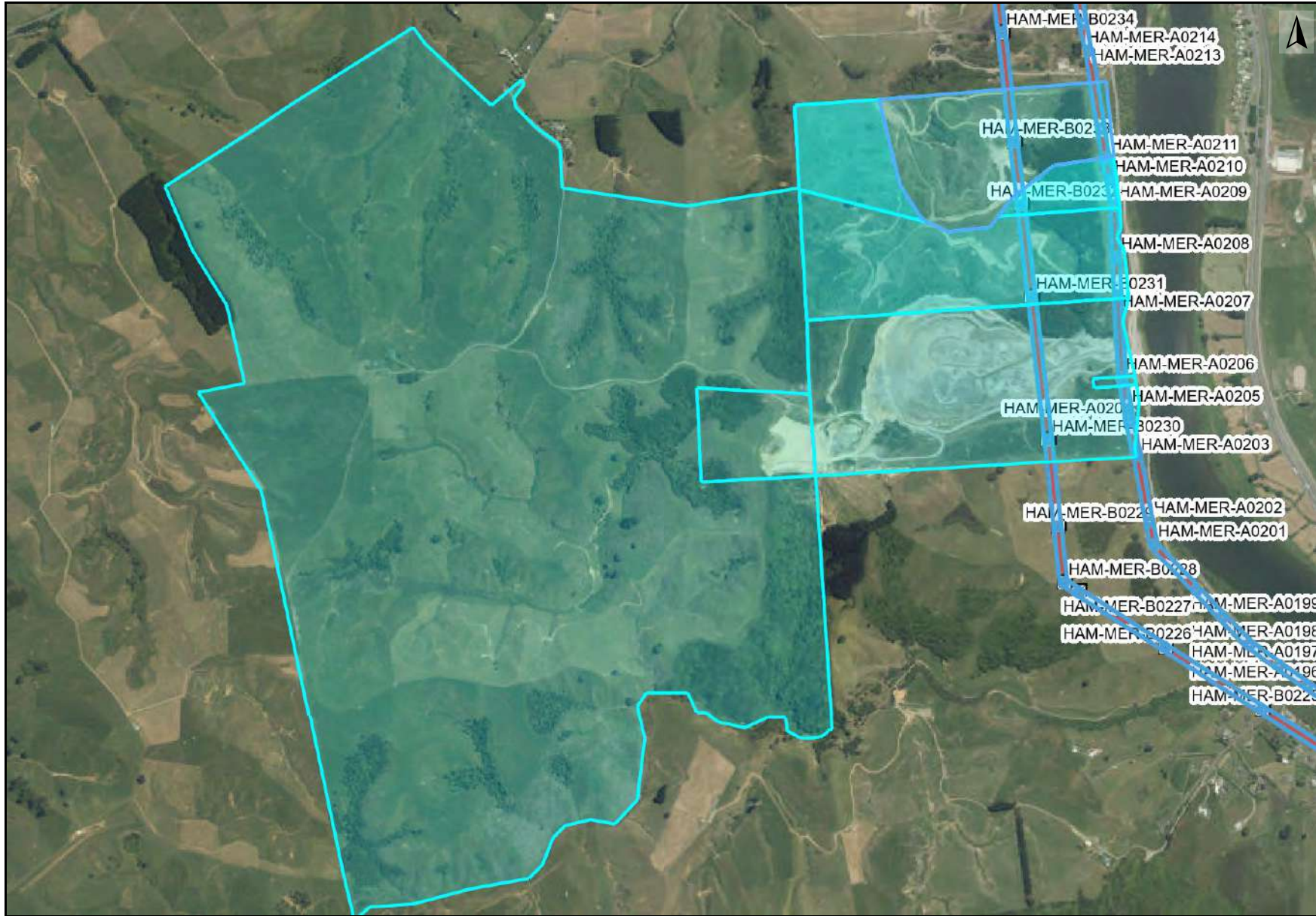
Structure

● Single Circuit Single Pole

☒ Double Circuit Steel Tower

Span

— 110 kV



25-Jul-2022 Scale 1: 18056 Plan size: A4L

THIS MAP IS NOT TO BE USED FOR NAVIGATION

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Appendix B:

Recommended conditions

1. **NZEC compliance** - All land use activities, including the construction of new buildings/structures, earthworks, fences, any operation of mobile plant and/or persons working near exposed line parts shall comply with the New Zealand Electrical Code of Practice for Electrical Safe Distances (NZECP 34:2001) or any subsequent revision of the code.
2. **Mobile Plant** - All machinery and mobile plant operated in association with the works shall maintain a minimum clearance distance of 4 metres from the conductors (wires) of the HAM-MER-B National Grid transmission lines at all times.

Submission on an application concerning resource consent that is subject to public notification by consent authority *Sections 95A & 96 of the Resource Management Act 1991*

SUBMISSIONS CLOSE AND MUST BE RECEIVED BY WAIKATO DISTRICT COUNCIL BY TUESDAY 16TH AUGUST 2022

To: Waikato District Council

Name of submitter (full name)

This is a submission on an application from Gleeson Managed Fill Limited to establish and operate a managed fill disposal activity that imports material to deposit within identified gullies (Fill Areas 2-4) located north of an existing quarry within the same site. To undertake soil disturbance of a piece of land (within Fill Area 3) as per the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health at 310 Riverview Road HUNTLY

*I am am not a trade competitor for the purpose of Section 308B of the Resource Management Act 1991

* Select one

† I am am not # directly affected by an effect of the subject matter of the submission that

- (a) adversely affects the environment; and
- (b) does not relate to trade competition or the effects of trade competition

†Delete this paragraph if you are not a trade competitor

Select one

The specific parts of the application that my submission relates to are:

Give details (attach separate sheets if necessary):

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I support oppose am neutral to the part/s named above.

Give details:

The reasons for my views are.....

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I seek the following decision from Waikato District Council: Approve Decline

Give precise details, including any parts of the application you wish to have amended and the general nature of any conditions sought.

.....

Number of additional sheets attached

I wish to be heard in support of my submission Yes No

If others make a similar submission, I will consider presenting a joint case with them at the hearing Yes No

Pursuant to section 100A of the Resource Management Act I request that you delegate your functions, powers and duties required to hear and decide the application to one or more hearings commissioners who are not members of the local authority Yes No

If you make a request under section 100A of the Resource Management Act, you must do so no later than 5 working days after the close of submissions and you may be liable to meet or contribute to the costs of the hearings commissioner or commissioners.

Signature of submitter of person authorized to sign on behalf of the submitter

..... Date

A signature is not required if you make your submission by electronic means

Address Postcode.....

Email Phone.....

Contact person's name (name and designation if applicable)

This is the person and the address to which all communications from the Council about the submission will be sent

Note to Submitter

The closing date for serving submissions on the consent authority is the 20th working day after the date on which public or limited notification is given. If the application is subject to limited notification, the consent authority may adopt an earlier closing date for submissions once the consent authority receives responses from all affected persons

You must serve a copy of your submission on the applicant whose address for service is Paua Planning Ltd, Kate Madsen, 180 Bawden Road, RD 2, Albany 0792 or email kate@pauaplanning.co.nz as soon as reasonably practicable after you have served your submission to Waikato District Council

If you are a trade competitor, your right to make a submission may be limited by the trade competition provisions in Part 11A of the Resource Management Act 1991

Written Submission

Postal Address Waikato District Council, Private Bag 544, Ngaruawahia 3742
 Telephone 0800 492 452

Email Submission

Consent.submissions@waidc.govt.nz

The information you have provided on this form is required so that your submission can be processed under the RMA, and your name and address will be publicly available. The information will be stored on a public register and held by the Council, and may also be made available to the public on the Council's website. In addition, any on-going communications between you and Council will be held at Council's offices and may also be accessed upon request by a third party. Access to this information is administered in accordance with the Local Government Official Information and Meetings Act 1987 and the Privacy Act 1993. If you have any concerns about this, please discuss with a Council Planner prior to lodging your submission. If you would like to request access to, or correction of your details, please contact the Council.

Submission to WDC – Gleeson Managed Fill Limited

Submission Summary:

1. **Put simply, I do not agree that "we" should risk two very significant water resources to dump fill of unknown type and origin. The proposal includes too many unknowns and the cost, if it goes wrong, is too high.**

I say "we" for we are all responsible for our land and water.

2. **I submit that the increased truck operations are incompatible with the substantial increase in residential development in the immediate area. The area is not the same as it was. Heavy industrial activity should not be increased.**
3. **I am concerned that the Gleeson companies have not shown that they can be trusted. In other words, it is not only the proposal that is of too high a risk, but it is also the applicant.**

Conclusion:

It is 2022, and I submit that the past days of risking our water quality and of disregarding the taonga of Maaori tangata whenua and current and future regional residents, is over.

We know too much now. The decisions we make are made with our eyes open.

I ask the applicant and the decision-makers to please consider carefully their role and responsibility.

Reasons:

1.0 There are too many unknowns and the risk is too high.

1.1 *Unknown*: the exact type of fill.

The Assessment of Effects document (6.1.1) says that although the proposed fill is not clean fill, that it should be treated AS IF was clean fill. This does not make sense to me. If it does not fit within the definition of clean fill, then surely it is NOT clean fill?

What exactly is the fill? What are end waste products from the construction industry (6.1.)

The application mentions asbestos, marine sediment, and acid sulphate soils.

What are the chemicals that may be dumped in the gullies?

1.2 *Unknown*: whether the fill can be successfully contained and treated?

If it is not known what contaminants may be in the "end waste products", how can we know that it can be successfully contained and treated?

1.3 *Unknown*: the origin of the fill.

If the waste is coming from regions and areas outside of Huntly and outside of the northern Waikato area, why is this? It is not equitable to bring waste from one area to another. This goes against modern principles of taking responsibility for the waste we create and that those who create waste should bear the costs and risks of that. I suggest that this is similar to New Zealand shipping its waste to poorer countries.

I question why the Waikato would agree to do this? What is the benefit to us? Is the area where the waste originates compensating us?

1.4 *Unknown*: the extent of contamination already in one of the fill sites and what will happen if this is disturbed (as this application proposes to do).

The application says that fill area 3 is most likely already contaminated and that disturbance of this soil requires a special consent under a national environmental standard. (5.1 of Assessment of effects).

Is it the case that the proposal risks disturbing (unknown) contaminants probably already present in order to add more (unknown) contaminants?

This seems a very bad idea.

1.5 *Unknown*: the amount of untreated residue that will end up in the Waikato river.

When I drive past this quarry (daily), I see the large amounts of dirt and run-off streaming away from the quarry entrance across the road, and into the Waikato river. This happens every day that it rains.

The road is covered in residue from the quarrying operations in approximately 300 to 400 metres in both directions. Again, some of this must end up in the river.

The additional 170 truck trips per week (24 per day), as estimated in the application, carrying fill that includes asbestos and other unknown chemicals, and the increased dust and residue from the trucks alone will impact the river. This residue will not be treated as it will not have even reached the fill sites.

1.6 *Risk* - The risk if it goes wrong is too high:

The risk is significant because the water resources at risk are significant.

The cost would be polluting the last clean local lake and a nationally significant river.

I am sceptical that any run-off from the fill sites will be adequately captured, treated or monitored.

If it is not, the negative effects on people and on aquatic life may be significant. From a risk management perspective, the consequences of getting it wrong are too high.

My understanding is that Puketirini is the ONLY recreationally safe lake in the Waikato area.

The Waikato river is crucial culturally, ecologically, and aesthetically.

2.0 Incompatible uses – residential and heavy industrial

2.1 There is a significant residential subdivision with 51 new lifestyle lots being developed right now along Hakarimata Road. The Gleeson trucks travel along this road in both directions.

This area is becoming more residential and heavy trucking and industrial activities are not compatible with that. I submit that heavy industrial activity should not be increased.

Neither is the road built for it. Part of Hakarimata Road has slipped into the river and the council have told me that it is not a priority to repair this. More trucks will put more stress on the road and increase safety risks to the increased number of residents.

3.0 There is a real risk that the applicant will not comply with any conditions or monitoring.

Is it correct that the Gleeson companies have in the recent past:

- i) started earthworks for this proposal, including draining a wetland, BEFORE it had consent, and
- ii) stored coal on this site without a consent (which can leach contaminants).

If so, I am worried that this suggests that Gleeson companies are willing to break rules. Rules that are there for important reasons.

A resource consent relies on trust because neither the council nor the community can watch Gleesons, especially on their own site.

Unfortunately, I submit that Gleesons has shown that it cannot be trusted.

4.0 Why am I making this submission?

I am directly affected by a potential effect of this proposal because:-

i) I live in the local area and drive past the Gleeson Cox quarry every day.

ii) I also swim in Lake Puketirini (in summer!) as an alternative to doing laps at the Huntly pool.

Every time I have swum there, there have been others also swimming and using the pontoon – which has been put there for that exact purpose.

Birds swim and dive in the lake. I've watched small schools of fish on the edge. People walk and cycle around it. Why would we risk this?

iii) I understand that we all drive on roads and that the gravel to build them has to come from somewhere.

I also understand that it has to be transported.

Quarries and fill sites, as with landfills/rubbish dumps and sewerage treatment plants, are a fact of life that most of us try not to think about or go anywhere near.

I think of them as unpleasant but necessary if we want to live in towns and cities and drive on roads.

However, just because they are necessary does not mean that we shouldn't carefully consider where they are located, whether the risks in a certain location are worth it, and how they affect ALL of us.

Submission on an application concerning resource consent that is subject to public notification by consent authority *Sections 95A & 96 of the Resource Management Act 1991*

SUBMISSIONS CLOSE AND MUST BE RECEIVED BY WAIKATO DISTRICT COUNCIL BY TUESDAY 16TH AUGUST 2022

To: Waikato District Council

Name of submitter (full name)

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*I am am not a trade competitor for the purpose of Section 308B of the Resource Management Act 1991

* Select one

† I am am not # directly affected by an effect of the subject matter of the submission that

- (a) adversely affects the environment; and
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†Delete this paragraph if you are not a trade competitor

Select one

The specific parts of the application that my submission relates to are:

Give details (attach separate sheets if necessary):

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I support oppose am neutral to the part/s named above.

Give details:

The reasons for my views are.....

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I seek the following decision from Waikato District Council: Approve Decline

Give precise details, including any parts of the application you wish to have amended and the general nature of any conditions sought.

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.....
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Number of additional sheets attached

I wish to be heard in support of my submission Yes No

If others make a similar submission, I will consider presenting a joint case with them at the hearing Yes No

Pursuant to section 100A of the Resource Management Act I request that you delegate your functions, powers and duties required to hear and decide the application to one or more hearings commissioners who are not members of the local authority Yes No

If you make a request under section 100A of the Resource Management Act, you must do so no later than 5 working days after the close of submissions and you may be liable to meet or contribute to the costs of the hearings commissioner or commissioners.

Signature of submitter of person authorized to sign on behalf of the submitter

..... Date
A signature is not required if you make your submission by electronic means

Address Postcode.....

Email Phone.....

Contact person's name (name and designation if applicable)

This is the person and the address to which all communications from the Council about the submission will be sent

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Section 3: Submission on proposal

Please detail your submission below. Attach additional pages if necessary.

I/we (tick one option only):

- Support the application/s
- Oppose the application/s
- Neither support nor oppose the application/s (neutral submission)

My submission:

The reasons for my views are:

I seek the following decision from the consent authority:

(Give precise details, including the parts of the application you wish to have amended and the general nature of any conditions sought.)

Please tick either yes or no to the following options:

I/we wish to be heard in support of this submission

Yes No

I/we will consider presenting a joint case at a hearing if others make a similar submission

Yes No

Signature of submitter: _____ Date: _____
(or person authorised to sign on behalf of submitter)

The information you have provided on this form will be stored on a public register and held by the council. The details (including your name and submission contents) may also be made available to the public on the council's website or on request, with your contact details removed. These details are collected to inform the general public and community groups about all consent applications which have been received by the council. If you would like to request access to, or correction of your details, please contact the council.

I have lived on the road for 47 years and now my kids are not even safe to go outside the section or play in front yard. Currently with the trucks going to and from Gleeson's

- There speed to over 70kms
- It is not safe to bike or walk from where I live at 166 Riverview road do the speed and swaying the the truck trailers
- I cannot allow kids to play in front yard as stones fly off trucks and one day I am suspecting they will go through a fence into a section as they do not slow down.
- I myself have nearly been hit twice when passing Gleeson and Cox as the drivers do not look when they pull out both early morning incidents and when called to complain was advised they don't expect traffic at that hour. I use the road at that time daily. Also last week nearly hit as turning from Riverview road heading south to turn into Porritt Ave and a truck coming north so I had to stop to turn giving lots of indications as truck behind me they had to slam on brakes to avoid hitting me from behind. My daughter only has one parent and on 3 occassions a close call to having no parent.

I have lived on the road for 47 years and now my kids are not even safe to go outside the section or play in front yard. Currently with the trucks going to and from Gleeson's • There speed to over 70kms

It is not safe to bike or walk from where I live at 166 Riverview road do the speed and swaying the the truck trailers

- I cannot allow kids to play in front yard as stones fly off trucks and one day I am suspecting they will go through a fence into a section as they do not slow down.
- I myself have nearly been hit twice when passing Gleeson and Cox as the drivers do not look when they pull out both early morning incidents and when called to complain was advised they don't expect traffic at that hour.

I use the road at that time daily. Also last week nearly hit as turning from Riverview road heading south to turn into Porritt Ave and a truck coming north so I had to stop to turn giving lots of indications as truck behind me they had to slam on brakes to avoid hitting me from behind. My daughter only has one parent and on 3 occassions a close call to having no parent.

- Proposed hours living here no sleep in as they wake us up every morning.
- Have to drive kids as not safe for them to go out gate and going to be worse. • I propose a footpath from the quarry through to connect to the existing one by Taxi hill and a safe place to cross over the road to walk on other side and a barrier along the footpath so you safe
- They reduce their speed to 50Km
- No Saturday or Sunday work so kids can enjoy outside life and we get a break from the vibration of the trucks and noise. • Would you want this outside you house, where you and your kids are not safe.

029

Submission on an application concerning resource consent that is subject to public notification by consent authority *Sections 95A & 96 of the Resource Management Act 1991*

SUBMISSIONS CLOSE AND MUST BE RECEIVED BY WAIKATO DISTRICT COUNCIL BY TUESDAY 16TH AUGUST 2022

To: Waikato District Council

Name of submitter (full name)

This is a submission on an application from Gleeson Managed Fill Limited to establish and operate a managed fill disposal activity that imports material to deposit within identified gullies (Fill Areas 2-4) located north of an existing quarry within the same site. To undertake soil disturbance of a piece of land (within Fill Area 3) as per the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health at 310 Riverview Road HUNTLY

*I am am not a trade competitor for the purpose of Section 308B of the Resource Management Act 1991

* Select one

† I am am not # directly affected by an effect of the subject matter of the submission that

- (a) adversely affects the environment; and
- (b) does not relate to trade competition or the effects of trade competition

†Delete this paragraph if you are not a trade competitor

Select one

The specific parts of the application that my submission relates to are:

Give details (attach separate sheets if necessary):

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I support oppose am neutral to the part/s named above.

Give details:

The reasons for my views are.....

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.....

.....

I seek the following decision from Waikato District Council: Approve Decline

Give precise details, including any parts of the application you wish to have amended and the general nature of any conditions sought.

.....

Number of additional sheets attached

I wish to be heard in support of my submission Yes No

If others make a similar submission, I will consider presenting a joint case with them at the hearing Yes No

Pursuant to section 100A of the Resource Management Act I request that you delegate your functions, powers and duties required to hear and decide the application to one or more hearings commissioners who are not members of the local authority Yes No

If you make a request under section 100A of the Resource Management Act, you must do so no later than 5 working days after the close of submissions and you may be liable to meet or contribute to the costs of the hearings commissioner or commissioners.

Signature of submitter of person authorized to sign on behalf of the submitter

..... Date

A signature is not required if you make your submission by electronic means

Address Postcode.....

Email Phone.....

Contact person's name (name and designation if applicable)

This is the person and the address to which all communications from the Council about the submission will be sent

Note to Submitter

The closing date for serving submissions on the consent authority is the 20th working day after the date on which public or limited notification is given. If the application is subject to limited notification, the consent authority may adopt an earlier closing date for submissions once the consent authority receives responses from all affected persons

You must serve a copy of your submission on the applicant whose address for service is Paua Planning Ltd, Kate Madsen, 180 Bawden Road, RD 2, Albany 0792 or email kate@pauaplanning.co.nz as soon as reasonably practicable after you have served your submission to Waikato District Council

If you are a trade competitor, your right to make a submission may be limited by the trade competition provisions in Part 11A of the Resource Management Act 1991

Written Submission

Postal Address Waikato District Council, Private Bag 544, Ngaruawahia 3742
 Telephone 0800 492 452

Email Submission

Consent.submissions@waidc.govt.nz

The information you have provided on this form is required so that your submission can be processed under the RMA, and your name and address will be publicly available. The information will be stored on a public register and held by the Council, and may also be made available to the public on the Council's website. In addition, any on-going communications between you and Council will be held at Council's offices and may also be accessed upon request by a third party. Access to this information is administered in accordance with the Local Government Official Information and Meetings Act 1987 and the Privacy Act 1993. If you have any concerns about this, please discuss with a Council Planner prior to lodging your submission. If you would like to request access to, or correction of your details, please contact the Council.



For internal use only

ECM Application # LUC0488/22

ECM

SUBMISSION #.....030

CUSTOMER #

Submission form

(Form I3)

Submission on an application concerning resource consent that is subject to public notification by consent authority Sections 95A & 96 of the Resource Management Act 1991

SUBMISSIONS CLOSE AND MUST BE RECEIVED BY WAIKATO DISTRICT COUNCIL BY TUESDAY 16TH AUGUST 2022

To: Waikato District Council

Name of submitter (full name) Lorrel Cherie Mowles & Alex John Mowles

This is a submission on an application from Gleeson Managed Fill Limited to establish and operate a managed fill disposal activity that imports material to deposit within identified gullies (Fill Areas 2-4) located north of an existing quarry within the same site. To undertake soil disturbance of a piece of land (within Fill Area 3) as per the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health at 310 Riverview Road HUNTLY

*I am am not a trade competitor for the purpose of Section 308B of the Resource Management Act 1991

* Select one

~~† I am am not # directly affected by an effect of the subject matter of the submission that~~

~~(a) adversely affects the environment; and~~

~~(b) does not relate to trade competition or the effects of trade competition~~

~~†Delete this paragraph if you are not a trade competitor~~

~~# Select one~~

The specific parts of the application that my submission relates to are:

Give details (attach separate sheets if necessary):

Managed fill operations in fill areas 2-4.

Increase in truck movements to & from the site along Riverview Road and other areas.

Effect on the local community.

I support oppose am neutral to the part/s named above.

Give details:

The reasons for my views are... See attached additional page.

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I seek the following decision from Waikato District Council: Approve Decline

Give precise details, including any parts of the application you wish to have amended and the general nature of any conditions sought. See attached additional page.

Number of additional sheets attached 1

I wish to be heard in support of my submission Yes No

If others make a similar submission, I will consider presenting a joint case with them at the hearing Yes No

Pursuant to section 100A of the Resource Management Act I request that you delegate your functions, powers and duties required to hear and decide the application to one or more hearings commissioners who are not members of the local authority Yes No

If you make a request under section 100A of the Resource Management Act, you must do so no later than 5 working days after the close of submissions and you may be liable to meet or contribute to the costs of the hearings commissioner or commissioners.

Signature of submitter of person authorized to sign on behalf of the submitter

..... Date 16/8/2022
A signature is not required if you make your submission by electronic means

Address 130 Riverview Road, Huntly Postcode 3700

Email lorrel.finn@hotmail.com Phone 0211205166

Contact person's name (name and designation if applicable) Lorrel & Alex Mowles

This is the person and the address to which all communications from the Council about the submission will be sent

Note to Submitter

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Telephone 0800 492 452

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Gleeson Managed Fill Ltd Submission – L & A Mowles – Additional page

As residents of Riverview Road we have already noticed a significant increase in truck movements since the quarry has been owned by Gleesons, which has caused disturbance to our home with noise, all throughout the day but in particular early in the morning as early as 6.30am. Our driveway is concealed from view when heading North along Riverview Road, which means when we are pulling out of our driveway, on occasion we are encountering trucks barrelling around the bend and having to slow down quickly to avoid collision. The thought of this becoming even more frequent and likely is worrying. The trucks are not always adhering to the speed limits, and have caused major road damage resulting in constant repairs needed particularly along Riverview Road, the intersection by KFC and also Tainui Bridge now requiring huge repairs which have been ongoing for at least 18 months now, I believe this is at least partially due to the large increase in weight of loads crossing the bridge each day. The potholes created have become a safety hazard and these will continue especially if the truck movements are to increase, resulting in more disturbance to the local community, unsafe road conditions, and more cost for road and bridge repairs.

Additional to the above, there has been a noticeable increase in road filth since Gleesons takeover eg; dust and rocks fallen off trucks, stretching from the quarry all the way to Tainui bridge at a minimum. This is making a huge mess, which is an eyesore, but also a driving hazard. Even in winter when we have had a good amount of rainfall there is still dust clouds when driving particularly when following a truck. Directly outside the quarry they have been wetting and sweeping the road, which in my opinion has minimal effect (just pushes the dirt around) and creates a slurry, which then goes all over peoples cars, and carried further down the road, to create dust. The roadsides are filthy, in some cases up to half a meter of filth on the roadside banks. This in turn will wash into our waterways, being directly next to the Waikato River. If this proposal goes through, these trucks will then be driving in and out of a dump site with some dangerous fill items eg; asbestos. The dust from these trucks then may be contaminated. The dump (managed fill) site, is concerningly close to the Waikato River, and also run off points to other waterways, I believe this is the perfect storm for an environmental issue in the future. I see this as an irresponsible place to have a managed fill site, with dangerous goods being dumped so close to waterways and a growing township. There must be more fitting locations that this type of waste can go.

I don't believe there is a great benefit to the community by having such a big company running in regards to creating jobs locally, as it seems most of their staff and truck drivers are Auckland based. It also seems ridiculous to me that the council is looking to approve a dump site, when it has just approved a large new subdivision on Riverview Road, almost backing onto the proposed fill land. This could have huge negative effects on the development and selling of this subdivision, and the desirability of the area. Huntly is a growing community, which needs new developments to attract new people to live in the area. The town already struggles with its perceived reputation to non-locals, and I don't believe this proposed fill site and increase in truck movements will help with this. Additionally the disturbance to residents living on Riverview Road, Great South Road, Harris Street and other nearby streets, means that it may make these homes less desirable, and impact house prices and ability to sell when needed.

Due to all the reasons mentioned above, the way Gleesons has been running the quarry for the past few years, gives me no reason to trust they will manage the proposed dump in a professional and responsible manner. You can implement all the rules and regulations in the world, but if they are not carried out by companies that take serious pride and responsibility in doing the right thing for their community and environment over profits, then there is always room for error and disaster.



WAIKATO DISTRICT COUNCIL
16 AUG 2022
Time 2:52 Initials JT
NGARUAWAHIA

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 ECM Application # LUC0488/22
 ECM
 SUBMISSION # 031
 CUSTOMER #

Submission form

(Form 13)

Submission on an application concerning resource consent that is subject to public notification by consent authority Sections 95A & 96 of the Resource Management Act 1991

SUBMISSIONS CLOSE AND MUST BE RECEIVED BY WAIKATO DISTRICT COUNCIL BY TUESDAY 16TH AUGUST 2022

To: Waikato District Council

Name of submitter (full name) Arthur, Esmee Baylis

This is a submission on an application from Gleeson Managed Fill Limited to establish and operate a managed fill disposal activity that imports material to deposit within identified gullies (Fill Areas 2-4) located north of an existing quarry within the same site. To undertake soil disturbance of a piece of land (within Fill Area 3) as per the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health at 310 Riverview Road HUNTLY

* I am am not a trade competitor for the purpose of Section 308B of the Resource Management Act 1991

* Select one

† I am am not # directly affected by an effect of the subject matter of the submission that

(a) ~~adversely affects the environment; and~~

(b) ~~does not relate to trade competition or the effects of trade competition~~

† Delete this paragraph if you are not a trade competitor

Select one

The specific parts of the application that my submission relates to are:

Give details (attach separate sheets if necessary):

Disturbing soil and accepting building and trade waste, including asbestos.

I support oppose am neutral to the part/s named above.

Give details:

The reasons for my views are Auckland can deal with it's own waste problems. Not wanting toxic materials in our urban areas. The fill will pollute our waterways

I seek the following decision from Waikato District Council: Approve Decline

Give precise details, including any parts of the application you wish to have amended and the general nature of any conditions sought

No amendments; decline

Number of additional sheets attached

I wish to be heard in support of my submission

Yes No

If others make a similar submission, I will consider presenting a joint case with them at the hearing

Yes No

Pursuant to section 100A of the Resource Management Act I request that you delegate your functions, powers and duties required to hear and decide the application to one or more hearings commissioners who are not members of the local authority

Yes No

If you make a request under section 100A of the Resource Management Act, you must do so no later than 5 working days after the close of submissions and you may be liable to meet or contribute to the costs of the hearings commissioner or commissioners.

Signature of submitter or person authorized to sign on behalf of the submitter

G.L. Bayles

Date

16-8-22

A signature is not required if you make your submission by electronic means

Address

12a Hakarua Street

Postcode

Email

Huntly

Phone

8288389

Contact person's name (name and designation if applicable)

This is the person and the address to which all communications from the Council about the submission will be sent

Note to Submitter

The closing date for serving submissions on the consent authority is the 20th working day after the date on which public or limited notification is given. If the application is subject to limited notification, the consent authority may adopt an earlier closing date for submissions once the consent authority receives responses from all affected persons

You must serve a copy of your submission on the applicant whose address for service is Paua Planning Ltd, Kate Madsen, 180 Bawden Road, RD 2, Albany 0792 or email kate@pauaplanning.co.nz as soon as reasonably practicable after you have served your submission to Waikato District Council

If you are a trade competitor, your right to make a submission may be limited by the trade competition provisions in Part 11A of the Resource Management Act 1991

Written Submission

Postal Address Waikato District Council, Private Bag 544, Ngaruawahia 3742

Telephone 0800 492 452

Email Submission

Consent.submissions@waikato.govt.nz

The information you have provided on this form is required so that your submission can be processed under the RMA, and your name and address will be publicly available. The information will be stored on a public register and held by the Council, and may also be made available to the public on the Council's website. In addition, any on-going communications between you and Council will be held at Council's offices and may also be accessed upon request by a third party. Access to this information is administered in accordance with the Local Government Official Information and Meetings Act 1987 and the Privacy Act 1993. If you have any concerns about this, please discuss with a Council Planner prior to lodging your submission. If you would like to request access to, or correction of your details, please contact the Council.



WAIKATO DISTRICT COUNCIL

16 AUG 2022

Time 2:52 Initials JT

NGARUAWAHIA

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ECM Application # LUC0488/22

ECM

SUBMISSION # **032**

CUSTOMER #

Submission form
(Form 13)

Submission on an application concerning resource consent that is subject to public notification by consent authority Sections 95A & 96 of the Resource Management Act 1991

SUBMISSIONS CLOSE AND MUST BE RECEIVED BY WAIKATO DISTRICT COUNCIL BY TUESDAY 16TH AUGUST 2022

To: Waikato District Council

Name of submitter (full name) Andrea Jean Dickinson

This is a submission on an application from Gleeson Managed Fill Limited to establish and operate a managed fill disposal activity that imports material to deposit within identified gullies (Fill Areas 2-4) located north of an existing quarry within the same site. To undertake soil disturbance of a piece of land (within Fill Area 3) as per the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health at 310 Riverview Road HUNTLY

*I am am not a trade competitor for the purpose of Section 308B of the Resource Management Act 1991
* Select one

† I am am not # directly affected by an effect of the subject matter of the submission that
(a) ~~adversely affects the environment; and~~
(b) ~~does not relate to trade competition or the effects of trade competition~~

†Delete this paragraph if you are not a trade competitor
Select one

The specific parts of the application that my submission relates to are:

Give details (attach separate sheets if necessary):

A managed fill site in Huntly
Dumping of asbestos products
Proximity to natural resources
Waste products including asbestos from other regions

I support oppose am neutral to the part/s named above.

Give details:

The reasons for my views are Another dump not required.
Believe other regions should take care
of their own waste The site is
too close to lakes & rivers.
Our health isn't worth the risk

I seek the following decision from Waikato District Council: Approve Decline

Give precise details, including any parts of the application you wish to have amended and the general nature of any conditions sought.

Decline consent and remove opportunity to reapply. No managed fill in our town.

Number of additional sheets attached

I wish to be heard in support of my submission

Yes No

If others make a similar submission, I will consider presenting a joint case with them at the hearing

Yes No

Pursuant to section 100A of the Resource Management Act I request that you delegate your functions, powers and duties required to hear and decide the application to one or more hearings commissioners who are not members of the local authority

Yes No

If you make a request under section 100A of the Resource Management Act, you must do so no later than 5 working days after the close of submissions and you may be liable to meet or contribute to the costs of the hearings commissioner or commissioners.

Signature of submitter of person authorized to sign on behalf of the submitter

[Handwritten signature]

Date 14.8.22

A signature is not required if you make your submission by electronic means

Address 38 William St, Huntly Postcode 3700
Email dickinsonfamily@kinet.co.nz Phone 0274 293529

Contact person's name (name and designation if applicable)

This is the person and the address to which all communications from the Council about the submission will be sent

Note to Submitter

The closing date for serving submissions on the consent authority is the 20th working day after the date on which public or limited notification is given. If the application is subject to limited notification, the consent authority may adopt an earlier closing date for submissions once the consent authority receives responses from all affected persons

You must serve a copy of your submission on the applicant whose address for service is Paua Planning Ltd, Kate Madsen, 180 Bawden Road, RD 2, Albany 0792 or email kate@pauaplanning.co.nz as soon as reasonably practicable after you have served your submission to Waikato District Council

If you are a trade competitor, your right to make a submission may be limited by the trade competition provisions in Part 11A of the Resource Management Act 1991

Written Submission

Postal Address Waikato District Council, Private Bag 544, Ngaruawahia 3742 Telephone 0800 492 452

Email Submission

Consent.submissions@waidc.govt.nz

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WAIKATO DISTRICT COUNCIL

16 AUG 2022

Time 2:52 Initials JK

NGARUAWAHIA

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ECM Application # LUC0488/22

ECM

SUBMISSION # **033**

CUSTOMER #

Submission form
(Form 13)

Submission on an application concerning resource consent that is subject to public notification by consent authority Sections 95A & 96 of the Resource Management Act 1991

SUBMISSIONS CLOSE AND MUST BE RECEIVED BY WAIKATO DISTRICT COUNCIL BY TUESDAY 16TH AUGUST 2022

To: Waikato District Council

Name of submitter (full name) WARREN GAVIN DICKINSON

This is a submission on an application from Gleeson Managed Fill Limited to establish and operate a managed fill disposal activity that imports material to deposit within identified gullies (Fill Areas 2-4) located north of an existing quarry within the same site. To undertake soil disturbance of a piece of land (within Fill Area 3) as per the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health at 310 Riverview Road HUNTLY

*I am am not a trade competitor for the purpose of Section 308B of the Resource Management Act 1991
* Select one

† I am am not # directly affected by an effect of the subject matter of the submission that
(a) adversely affects the environment; and
(b) does not relate to trade competition or the effects of trade competition

†Delete this paragraph if you are not a trade competitor
Select one

The specific parts of the application that my submission relates to are:

Give details (attach separate sheets if necessary):

DUMPING OF ASBESTOS PRODUCTS - OR CONTAMINATED SOIL

I support oppose am neutral to the part/s named above.
Give details:

The reasons for my views are.....

POLLUTION TO WATERWAYS FROM SEEPAGE FROM LANDFILL

I seek the following decision from Waikato District Council: Approve Decline

Give precise details, including any parts of the application you wish to have amended and the general nature of any conditions sought

.....

Number of additional sheets attached

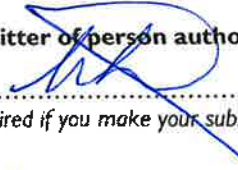
I wish to be heard in support of my submission Yes No

If others make a similar submission, I will consider presenting a joint case with them at the hearing Yes No

Pursuant to section 100A of the Resource Management Act I request that you delegate your functions, powers and duties required to hear and decide the application to one or more hearings commissioners who are not members of the local authority Yes No

If you make a request under section 100A of the Resource Management Act, you must do so no later than 5 working days after the close of submissions and you may be liable to meet or contribute to the costs of the hearings commissioner or commissioners.

Signature of submitter or person authorized to sign on behalf of the submitter



Date 15/8/22

A signature is not required if you make your submission by electronic means

Address 38 WILLIAM ST Postcode 3700

Email DICKINSON.FAMILY@KINGCT.WO.NZ Phone 027 4411 257

Contact person's name (name and designation if applicable)

This is the person and the address to which all communications from the Council about the submission will be sent

Note to Submitter

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Email Submission

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Submission on an application concerning resource consent that is subject to public notification by consent authority *Sections 95A & 96 of the Resource Management Act 1991*

SUBMISSIONS CLOSE AND MUST BE RECEIVED BY WAIKATO DISTRICT COUNCIL BY TUESDAY 16TH AUGUST 2022

To: Waikato District Council

Name of submitter (full name)

This is a submission on an application from Gleeson Managed Fill Limited to establish and operate a managed fill disposal activity that imports material to deposit within identified gullies (Fill Areas 2-4) located north of an existing quarry within the same site. To undertake soil disturbance of a piece of land (within Fill Area 3) as per the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health at 310 Riverview Road HUNTLY

*I am am not a trade competitor for the purpose of Section 308B of the Resource Management Act 1991

* Select one

† I am am not # directly affected by an effect of the subject matter of the submission that

- (a) adversely affects the environment; and
- (b) does not relate to trade competition or the effects of trade competition

†Delete this paragraph if you are not a trade competitor

Select one

The specific parts of the application that my submission relates to are:

Give details (attach separate sheets if necessary):

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I support oppose am neutral to the part/s named above.

Give details:

The reasons for my views are.....

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I seek the following decision from Waikato District Council: Approve Decline

Give precise details, including any parts of the application you wish to have amended and the general nature of any conditions sought.

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Number of additional sheets attached

I wish to be heard in support of my submission Yes No

If others make a similar submission, I will consider presenting a joint case with them at the hearing Yes No

Pursuant to section 100A of the Resource Management Act I request that you delegate your functions, powers and duties required to hear and decide the application to one or more hearings commissioners who are not members of the local authority Yes No

If you make a request under section 100A of the Resource Management Act, you must do so no later than 5 working days after the close of submissions and you may be liable to meet or contribute to the costs of the hearings commissioner or commissioners.

Signature of submitter of person authorized to sign on behalf of the submitter

..... Date

A signature is not required if you make your submission by electronic means

Address Postcode.....

Email Phone.....

Contact person's name (name and designation if applicable)

This is the person and the address to which all communications from the Council about the submission will be sent

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If you are a trade competitor, your right to make a submission may be limited by the trade competition provisions in Part 11A of the Resource Management Act 1991

Written Submission

Postal Address Waikato District Council, Private Bag 544, Ngaruawahia 3742
Telephone 0800 492 452

Email Submission

Consent.submissions@waidc.govt.nz

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The specific parts of the application that my submission relates to are:

The submission for the infilling of the valley off of Rotowaro road has the following issues in my perspective:

The acid sulphate soils which are proposed to be a part of the deposited material include acidic compounds, these compounds once in the ground will leach into the catchment, this will occur either via surface runoff or via groundwater flows.

The groundwater and surface water runoff from the catchment in which the material is proposed to be deposited, inflows towards a tributary of Lake Puketirini.

Surrounding this lake there is evidence that there is a high level of acid sulphate in the groundwater and soils, this may be a result of the previous activities conducted at the lake when it was a mine. The presence of high iron sulphate levels is indicated by the rust colour which is present in the tributary and waterways as well as on the metallised tracks when the water table is high enough for the groundwater to seep out. See pictures attached.

The addition of a large amount of acid sulphate soils in the proposed deposition area will result in an eventual increase of acidic compounds in the tributaries and waterways of the area, the effects of which will likely be seen to kill the natural flora and fauna of the area.

The issue may be worth raising with the Smith family which are in the process of creating there application for a residential subdivision at the Puketirini lake as they will be affected by this proposed activities in future should this go ahead. The application is under Terra Firma Resources Ltd.

There are other lakes in our area which were once lovely fresh lakes but are now so polluted that you cannot swim in them. The lake in Te Kauwhata where they have built a new housing community around it is a dead lake, this is something we need to avoid at all costs.

Lake Puketirini has been redeveloped into a beautiful asset for our community and one that is being continuously improved upon. For the sake of a company and it's profit margins, please don't let it impact the lives of all of Huntly by ruining such a pristine asset. Once it's gone, it's very hard to reverse or possibly not at all.

With regards to the amount of trucks currently coming into Huntly, the roads are being damaged constantly by the large trucks turning at the lights by KFC intersection and damage to the Tainui Bridge. Pot holes are very common now due to the trucks and damage to cars becoming more frequent. The amount of debris from the trucks onto the roads is causing major filth in the town. Currently people dub Huntly as one of the worst towns in NZ, we don't want to be the dumping ground for everyone else's rubbish.





035

Submission on an application concerning resource consent that is subject to public notification by consent authority *Sections 95A & 96 of the Resource Management Act 1991*

SUBMISSIONS CLOSE AND MUST BE RECEIVED BY WAIKATO DISTRICT COUNCIL BY TUESDAY 16TH AUGUST 2022

To: Waikato District Council

Name of submitter (full name)

This is a submission on an application from Gleeson Managed Fill Limited to establish and operate a managed fill disposal activity that imports material to deposit within identified gullies (Fill Areas 2-4) located north of an existing quarry within the same site. To undertake soil disturbance of a piece of land (within Fill Area 3) as per the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health at 310 Riverview Road HUNTLY

*I am am not a trade competitor for the purpose of Section 308B of the Resource Management Act 1991

* Select one

† I am am not # directly affected by an effect of the subject matter of the submission that

- (a) adversely affects the environment; and
- (b) does not relate to trade competition or the effects of trade competition

†Delete this paragraph if you are not a trade competitor

Select one

The specific parts of the application that my submission relates to are:

Give details (attach separate sheets if necessary):

.....

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.....

I support oppose am neutral to the part/s named above.

Give details:

The reasons for my views are.....

.....

.....

.....

.....

.....

I seek the following decision from Waikato District Council: Approve Decline

Give precise details, including any parts of the application you wish to have amended and the general nature of any conditions sought.

.....

.....

.....

.....

.....

Number of additional sheets attached

I wish to be heard in support of my submission Yes No

If others make a similar submission, I will consider presenting a joint case with them at the hearing Yes No

Pursuant to section 100A of the Resource Management Act I request that you delegate your functions, powers and duties required to hear and decide the application to one or more hearings commissioners who are not members of the local authority Yes No

If you make a request under section 100A of the Resource Management Act, you must do so no later than 5 working days after the close of submissions and you may be liable to meet or contribute to the costs of the hearings commissioner or commissioners.

Signature of submitter of person authorized to sign on behalf of the submitter

..... **Date**

A signature is not required if you make your submission by electronic means

Address **Postcode**.....

Email **Phone**.....

Contact person's name (name and designation if applicable)

This is the person and the address to which all communications from the Council about the submission will be sent

Note to Submitter

The closing date for serving submissions on the consent authority is the 20th working day after the date on which public or limited notification is given. If the application is subject to limited notification, the consent authority may adopt an earlier closing date for submissions once the consent authority receives responses from all affected persons

You must serve a copy of your submission on the applicant whose address for service is Paua Planning Ltd, Kate Madsen, 180 Bawden Road, RD 2, Albany 0792 or email kate@pauaplanning.co.nz as soon as reasonably practicable after you have served your submission to Waikato District Council

If you are a trade competitor, your right to make a submission may be limited by the trade competition provisions in Part 11A of the Resource Management Act 1991

Written Submission

Postal Address Waikato District Council, Private Bag 544, Ngaruawahia 3742
Telephone 0800 492 452

Email Submission

Consent.submissions@waidc.govt.nz

The information you have provided on this form is required so that your submission can be processed under the RMA, and your name and address will be publicly available. The information will be stored on a public register and held by the Council, and may also be made available to the public on the Council's website. In addition, any on-going communications between you and Council will be held at Council's offices and may also be accessed upon request by a third party. Access to this information is administered in accordance with the Local Government Official Information and Meetings Act 1987 and the Privacy Act 1993. If you have any concerns about this, please discuss with a Council Planner prior to lodging your submission. If you would like to request access to, or correction of your details, please contact the Council.

1

Submission on Gleeson Managed Fill Ltd

I strongly **oppose** this Application by Gleeson Managed Fill Ltd.

Gleeson and Cox have demonstrated their inability to safely manage hazards on their existing quarry site. In the heavy rain that we have recently experienced, I have seen storm water coming from their quarry site, running across the road and into the Waikato River. It is not unusual to see Plumes of dust clouds rising above the hill line over the quarry. From the entrance to the quarry onto River View Rd, there is has mud and debris slick smeared down the road for a kilometre. Their current system of using a water truck followed by a road sweeper is actually making the situation worse. The sweeper pushes the dirt to the left hand side of the road, creating a raised berm, while muddy water splashes onto passing cars and into the Waikato River. If they cannot effectively manage their current operation, it casts doubts on their ability to manage a more complex, High Risk land fill operation.

Impact on our personal Quality of life- reduced air quality, dust, noise, contaminated drinking water.

As close neighbours to the quarry, this proposal will directly affect our quality of life and having a landfill as a neighbour will have significant adverse effects on the special character of our community. We live in Parker Rd, just a kilometre south of the quarry. We can see the Waikato River flowing past from our front door step and we have the Hakaramata Scenic Reserve at our backdoor. We live in Waikato District Council's "Rural lifestyle zone", which has stated restrictions and requirements that preserve the "special character" of the zone, and "Provide for the health and well-being of the community". We are required to be self-sufficient in the provision of water supply, waste and stormwater disposal.

We are constantly exposed to dust. I am no housewife, but there is a daily gritty dust deposited on the house window sills, facing the quarry. Along with the other 50 odd houses in our neighbourhood community, we all rely on roof rain water for our drinking water. Dust created by increased activity from dumping contaminated soil and demolition products will affect our water quality, as dust settles on our roof. As most of the homes in the area have internal garaging, we are already tracking quarry mud into our homes, as our cars are covered in it when we drive past the quarry entrance. The constant noise and vibration of an increased number of trucks rumbling past our home for 15 hours a day, is a cause for concern. There is a narrow one lane bridge, about 200 metres down the road, which trucks come speeding up to then either noisily change down through their gears or worse still, use their engine brakes. The whole house shakes with some quarry blasts.

2**Asbestos contaminated soil**

Item 15.2.5 correctly states that asbestos is an inert substance. What it fails to add is that once asbestos is disturbed, by being cut, scrapped, smashed or crushed as occurs during the demolition process, it is no longer safe and becomes highly toxic, shedding tiny, glass like asbestos fibres.

The proposed fill will contain asbestos contaminated soil, and demolition materials containing asbestos. Degrading asbestos buildings, or former sites of such buildings may have higher levels of damaged asbestos. Asbestos contaminated soil and building product are then to be further crushed, and compacted on site, releasing toxic airborne asbestos dust which could contaminate the air and settle in water where it is ingested.

All forms of asbestos can cause cancer. There is no cure for asbestosis or mesothelioma. When inhaled or ingested, asbestos accumulates in the body over a prolonged period of time, where it stays forever.

As a District Nurse working in the North Waikato over the past 20 years, I have cared for several people who were dying from Mesothelioma- cancer from asbestos exposure. All cases were accepted by ACC as being the result of long term exposure to asbestos.

The New Zealand Ministry of Health states that there is “no ‘safe’ lower limit of exposure has been identified with certainty to the exposure of asbestos”.

Asbestos is one of nature’s forever compounds. Once it is in the landfill, it will be there forever. It is totally inappropriate that this is dumped close to a pre-existing housing community, or a major New Zealand waterway. It is an unnecessary High Risk location.

Emergency plan - Extreme weather events

There does not appear to be an Emergency Management Plan to cope with extreme weather events. The true stress test is an emergency event. Can the settling ponds and pump stations cope with unusually high rainfall or loss of power? What will happen to untreated water? New Zealand along with the rest of the world has recently experienced massive flooding and unexpected weather events. Huntly West and River Road already have a long history of being prone to flooding. In 2009, 90mm of rain fell in 2 hours. River View Rd became impassable, houses were evacuated. Huntly College in Huntly West was completely flooded when the River breached its banks. Again, in 2016, the Waikato River breached causing people to be evacuated, with landslips, blocked drains and power outages along River View Rd. The \$250,000 seems to be inadequate to cope with any clean-up and rehabilitation following an extreme weather event. A multimillion dollar Bond should be set, to reflect the real cost of remedial work should an extreme weather event or something unforeseen occur. The unimaginable can happen.

3

Recommendations

Consent be **Declined**.

This proposal has the potential to negatively impact on the quality of life and wellbeing of the Quarries immediate pre-existing neighbours. It is of no benefit to the local or wider Huntly Community. It is completely inappropriate to place a highly hazardous, asbestos contaminated landfill next to a major New Zealand waterway .It carries significant, unnecessary high risk and long term threats to the local community and environment. Why risk it?

Submission form
 (Form 13)

Submission on an application concerning resource consent that is subject to public notification by consent authority Sections 95A & 96 of the Resource Management Act 1991

SUBMISSIONS CLOSE AND MUST BE RECEIVED BY WAIKATO DISTRICT COUNCIL BY TUESDAY 16TH AUGUST 2022

To: Waikato District Council

Name of submitter (full name) Alan & Bronwyn Koscof

This is a submission on an application from Gleeson Managed Fill Limited to establish and operate a managed fill disposal activity that imports material to deposit within identified gullies (Fill Areas 2-4) located north of an existing quarry within the same site. To undertake soil disturbance of a piece of land (within Fill Area 3) as per the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health at 310 Riverview Road HUNTLY

* I am am not a trade competitor for the purpose of Section 308B of the Resource Management Act 1991

* Select one

† I am am not # directly affected by an effect of the subject matter of the submission that

(a) ~~adversely affects the environment; and~~

(b) ~~does not relate to trade competition or the effects of trade competition~~

† Delete this paragraph if you are not a trade competitor

Select one

The specific parts of the application that my submission relates to are:

Give details (attach separate sheets if necessary):

The application from Gleeson Managed Fill LTD to
establish and operate a managed fill and disposal
activity that imports material to deposit at
310 River Road Huntly
(Please see attachment)

I support oppose am neutral to the part/s named above.

Give details:

The reasons for my views are

Please see attachment

I seek the following decision from Waikato District Council: Approve Decline

Give precise details, including any parts of the application you wish to have amended and the general nature of any conditions sought.

Please see attachment

Number of additional sheets attached 3

I wish to be heard in support of my submission

Yes No

If others make a similar submission, I will consider presenting a joint case with them at the hearing

Yes No

Pursuant to section 100A of the Resource Management Act I request that you delegate your functions, powers and duties required to hear and decide the application to one or more hearings commissioners who are not members of the local authority

Yes No

If you make a request under section 100A of the Resource Management Act, you must do so no later than 5 working days after the close of submissions and you may be liable to meet or contribute to the costs of the hearings commissioner or commissioners.

Signature of submitter of person authorized to sign on behalf of the submitter

[Signature] Date 14/8/2022
A signature is not required if you make your submission by electronic means

Address 120 Kimitia Rd Huntly Postcode 3700
P.O. Box 33 Huntly 3740

Email Admin@mgk.co.nz Phone 021 214 1693

Contact person's name (name and designation if applicable) Alan & Bronwyn Koscof

This is the person and the address to which all communications from the Council about the submission will be sent

Note to Submitter

The closing date for serving submissions on the consent authority is the 20th working day after the date on which public or limited notification is given. If the application is subject to limited notification, the consent authority may adopt an earlier closing date for submissions once the consent authority receives responses from all affected persons
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Our objection to the application from Gleeson Managed Fill Limited to establish and operate a managed fill and disposal activity that imports material to deposit at 310 Riverview Road, Huntly.

We oppose the application for resource consent because :

- A. The proposed sites are too close to the Huntly residential area and the Waikato River and Lake Puketirini.
- B. The applicant seeks consent to discharge water from sedimentation ponds to streams which discharge directly into Lake Puketirini and the Waikato River.
- C. Nowhere in the application does the applicant provide for pre-emptive action to stop and contain an extra-ordinary event which allows a discharge into and therefore the contamination of Lake Puketirini.
- D. Lake Puketirini is a very deep (ex opencast coal mine) man-made lake which has slow water movement. This lake, because of its depth is non flushable and any adverse event to its water quality will not be reversible.
- E. Lake Puketirini is the only local lake which has water quality which allows it to be used for human recreational activities. It provides a recreational area for a multitude of water activities and sports enjoyed by thousands of residents, both local and non-local every year and this should not be compromised by allowing it to be used or be part of an industrial activity.

OUR GENERAL SUPPORT to the Waahi Whaanui Trust

We support the Waahi Whaanui Trust opposition to the applicant's proposed use of fill area number 3 for the reasons stated in their correspondence dated 31 August 2021. We believe the same reasons apply to fill area number 2 and its discharge into Lake Puketirini.

OUR SPECIFIC OBJECTION – Fill area number 2

Though we have an overall objection to a Managed Fill and disposal activity at 310 River Road, Huntly, because the site is just not suitable.

However, we have a specific objection to the use of fill area number 2 which has a discharge application attached to it for the discharge of treated water from the sedimentation ponds into streams that discharge into Lake Puketirini. As regular users of the lake, we are directly affected by this application. We therefore seek that Gleeson Managed Fill Limited's application to use Fill Area Number 2 as a managed fill and disposal activity area be declined.

The Grounds for our objection

Any major adverse event which is not or cannot be controlled will allow sedimentation and contaminants to flow into Lake Puketirini thereby damaging the water quality of the Lake. Nowhere in the applicant's submission does Gleeson Managed Fill Ltd give a 100% guarantee that events such as this will never happen.

The list of the contaminants which will be allowable in the fill area 2 could easily destroy the lake for future use. Some of the contaminants in Section 8.3 and appendix 19 have not been fully researched as to the affects they would have on the environment if not contained in a controlled area. Other contaminants such as erionite, which is found in Auckland bedrock, which could be in fill materials supplied have not been researched.

The specialist reports provided in the application are qualified reports and use phrases such as 'is unlikely' / 'affects will be minimal' / 'will not unduly impact' and 'no more than minor'. It is therefore easy to conclude that it is possible a significant event could impact upon the health of Lake Puketirini.

Section 13.5 of the applicant's submission (discharges and surface water quality – Lake Puketirini) is acknowledged but this too does not rule out entirely an event that would badly affect the Lake's water quality.

We have noted that the Applicant Gleeson's have considered the liability affect on them from a financial perspective if a major event occurred, which breached their resource consent. The application for Resource Consent has been filed by Gleeson Managed Fill Ltd – a stand alone Company with 1 Director and a share capital of \$1,000. These shares are owned by another Gleeson Company which has as it's shareholder two detached Family Trusts. This structure is standard business practice affording maximum protection for the Gleeson Group from liabilities caused from their operation of the Managed Fill business. In their application it refers to Gleeson Managed Fill Ltd being a division of the Gleeson Group BUT in reality it is a stand-alone Company of little net worth for liability protection purposes.

We also make the comment that the land where imported fill material will be deposited is owned by Gleeson Quarries Huntly Ltd. The imported fill material will become part of the land forever and yet this Company has not joined the Resource Consent Application. Another liability protection method.

Clearly the Gleeson Group has considered there could be events that will impact upon the environment and therefore the local community by the operation of a Managed Landfill operation at 310 River Road, Huntly.

The application contains volumes of expert advice operating procedures, checks and balances, construction specifications, environmental protection rules, monitoring and audit considerations along with complex daily operating rules. We would contend this is a very complex business model to get right and more so in this case due to its location. It requires management by a very experienced operator. We believe the operation of this landfill goes well beyond just a rule book and ticking of the boxes. Industry history and past experience of a significant nature will be required and this is not addressed in the application.

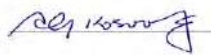
OUR REQUEST TO THE COMMISSIONER :

Having considered our objection we would like the Commissioner to decline the Resource Consent for fill area 2 to be part of the managed fill and disposal activity at 310 River Road, Huntly operated by Gleeson Managed Fill Ltd.

Should the Commissioner allow the Application for fill area 2, we would like the following changes made to the Application :

- i) That the Application for Resource Consent be amended to Gleeson Managed Fill Ltd AND Gleeson Quarries Huntly Ltd.
- ii) The Director of Gleeson Managed Fill Ltd, Gleeson Parent Company and its Directors and the Gleeson Trust and Trustees provide guarantees for actions of Gleeson Managed Fill Ltd / Gleeson Quarries Huntly Ltd (the applicants) and the payment of any resulting liabilities and damages.
- iii) The acceptance of infill to the site be restricted to material from the area governed by the Waikato District Council.
- iv) The Applicants accept they will be jointly liable along with the Waikato District Council under the relevant Health & Safety regulations for harm to the public using Lake Puketirini as a result of their infill operations in area 2.
- v) All clean water flowing close to fill area 2 be diverted into sediment ponds and filtration areas before discharge into Lake Puketirini. All waste water from infill site itself and its immediate surrounds be contained onsite in holding ponds and be disposed of in an appropriate matter offsite.
- vi) That the Applicant be required to employ an independent Manager with the required industry knowledge, experience and expertise who appointment will be managed and approved by the Waikato District Council & Waikato Regional Council. Alternatively, the site could be managed by a team from WDC & WRC with the funding for same provided by the Applicant.

Thank you.



Alan & Bronwyn KOSOOF

Regular Users of Lake Puketirini

WAIKATO DISTRICT COUNCIL

S42A Report

Appendix E

Traffic Review - Gray Matter

21 October 2022

Waikato District Council
C/- Kinetic Environmental Consulting Ltd
Attn: Julia Masters

Gray Matter Ltd
2 Alfred Street,
PO Box 14178
Hamilton, 3252
Tel: 07 853 8997

17_164

Dear Julia

GLEESON QUARRY AND MANAGED FILL LTD: REVIEW OF FURTHER INFORMATION AND TRANSPORT SUBMISSIONS

1. Introduction

Gleeson Managed Fill Ltd and Gleeson Quarries Huntly Ltd (the Applicant) has made an application for consent to create a managed fill operation on the existing quarry site located on Riverview Road in Huntly. The existing site activity is a quarry and a change of conditions was granted (LUC 0035/11.05) in September 2019 to allow an increase in extraction to 1.8M T/yr.

Waikato District Council (WDC) has engaged Gray Matter to peer review the transportation aspects of the managed fill proposal.

This proposal seeks consent to operate for 35 years of 300,000m³ of managed fill including clean fill material per annum. For simplicity, in this assessment we refer to the activity as “clean fill” consistent with the Applicant’s traffic assessment.

We have previously provided a transportation review of the application in March 2020. The applicant relodged the application in April 2022 and requested that it be publicly notified. We provided our transportation review of that application as a letter dated 27 June 2022.

This letter presents our assessment to support WDC’s planner’s report. It includes:

- = A summary of the key aspects of the application from a transportation perspective;
- = Comments on the Applicant’s assessment and main areas of agreement and disagreement;
- = Comments on the further information provided by the Applicant;
- = Comments on submissions;
- = Our evaluation of the nature and extent of traffic effects from the proposal; and
- = Recommended mitigation in the form of consent conditions.

Our review is based on:

- = Establishment and Operation of a Managed Fill Activity, Riverview Drive, Huntly. Traffic Impact Assessment (Traffic Engineering and Management Ltd, Final dated 27/5/2022);
- = Further information relevant to transportation provided via email from Kate Madsen to Julia Masters, Tuesday 4 October 2022; and
- = Site visits on Monday 20 June 2022 and Sunday 9 October 2022.

We have also referred to aspects of the Assessment of Effects Proposed Overburden and Managed fill Activity Riverview Road Huntly April 2022 Rev 01 prepared by Paua Planning (AEE).

2. Site Location and Proposal

The application is to establish managed fill in three fill areas on the site. The site is an established quarry with an existing vehicle crossing to Riverview Road, on the western side of the Waikato River south of Huntly.

The proposal is for a maximum of 300,000m³ of managed fill per annum. The Traffic Impact Assessment (TIA) states the consent is sought for 35 years¹. The 35 year life at 300,000 m³/year is significantly more fill than the total projected fill volume within Fill areas 2-4 (2,009,200m³) in Table 1 of the AEE² but we note that the 300,000m³ is a maximum. 35 years would mean an average volume of approximately 60,000m³/year for the stated capacity.

Fill ID	Fill Area (hectares)	Projected Fill Volume (m ³)	Fill Material
Fill Area 2	3.8	632,600	Managed fill with ACM, cleanfill and overburden
Fill Area 3	4.2	576,600	
Fill Area 4	5.1	800,000	
TOTAL	13.1	2,009,200	

Figure 1: Table 1 of the AEE (Managed fill areas)

The proposal includes filling areas which are all set back from Riverview Road and within the property (Figure 2). Area 5 is for the disposal of overburden only and we understand this is subject to a separate consent. Area 3 and Area 5 will be filled concurrently and the Areas 2 and 4 will be subsequently filled. The existing quarry operates to the south of the fill areas. The overburden produced as part of the quarry operation will be relocated within the site to the cleanfill areas. The TIA states that there is expected to be a total of 674,940 m³ of overburden with 150,000-200,000 m³ per annum requiring to be shifted during the first few years.

The TIA states that the quarry hours are between 6am and 7pm all year round. The TIA states that the proposal seeks to increase the weekday operating hours to 5am to 6pm (May – Sept) or 8pm (Oct - April) and that both operations are proposed to have the same operating hours. We note that the extended quarry hours in relation to truck movements at the vehicle crossing are allowed for by condition PC6b of LUC 003/11.05.

The proposal also includes constructing an internal haul road to link the quarry and the fill areas. The current internal haul roads will be upgraded for heavy vehicles to access the various fill areas. Upgrades of the existing internal haul roads include an estimated width of between 11-15m to accommodate two-way traffic and maximum gradients of 1:10. The internal haul roads will not be sealed. The proposed width (more than 10m) for the haul roads is sufficient to allow two trucks to pass and for stacking/parking.

¹ Establishment and Operation of a Managed Fill Activity, Riverview Drive, Huntly. Traffic Impact Assessment (Traffic Engineering and Management Ltd, dated 27/5/2022) page 1.

² Assessment of Effects Proposed Overburden and Managed fill Activity Riverview Road Huntly April 2022 Rev 01 prepared by Paua Planning.

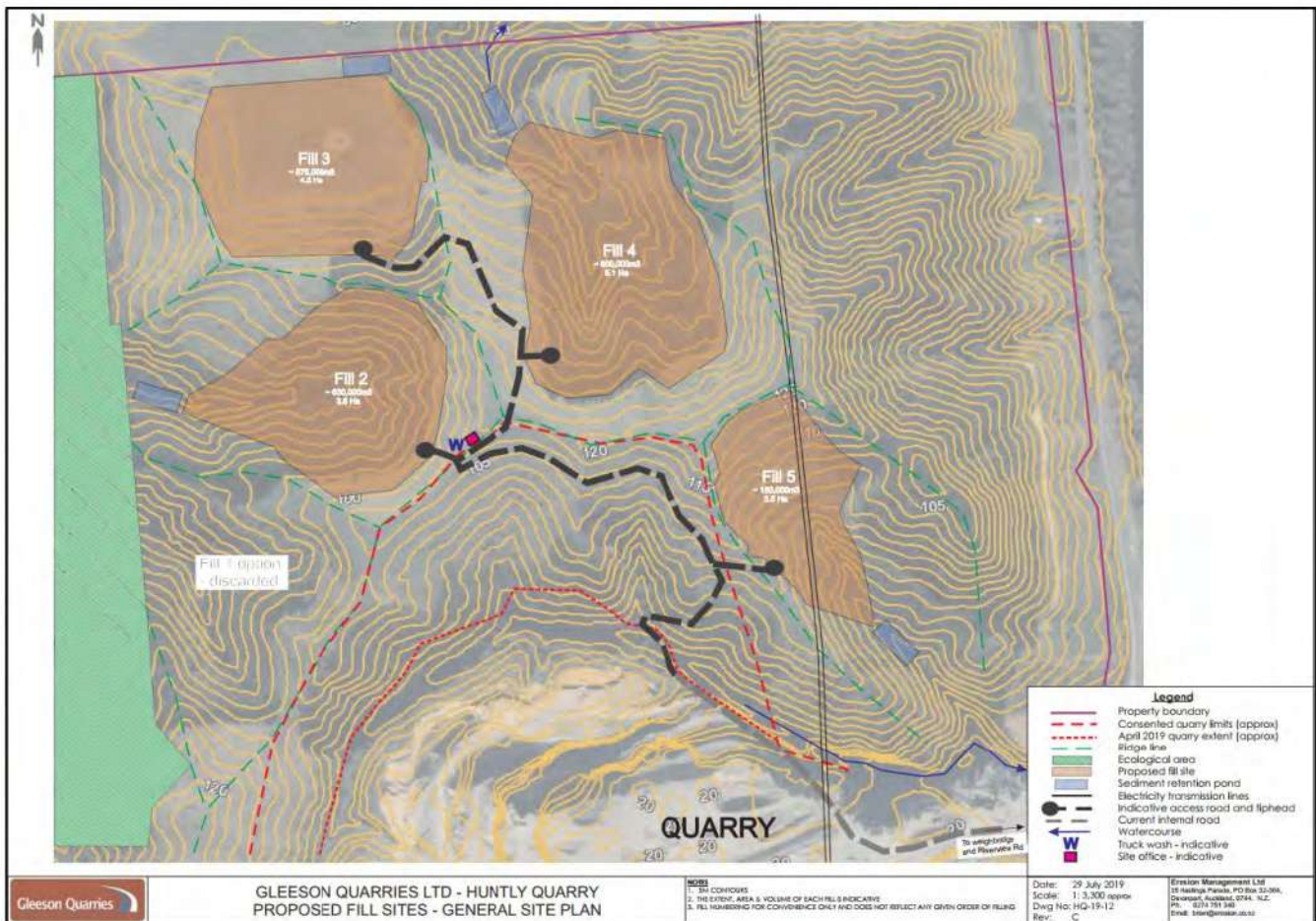


Figure 2: Proposed Fill Areas and Internal Roads (snipped from Figure 2 of the TIA)

The existing vehicle crossing to Riverview Road will be used by both the quarry and managed fill trucks.

The proposal includes a truck wash to clean the truck decks to avoid cross contamination and allow trucks to be backloaded with aggregate. The proposal anticipates Gleeson and Cox trucks that currently travel to site empty (to collect aggregate) will arrive with a clean fill load and be backloaded with aggregate. The proposed truck wash is indicated in Figure 2 (symbol "W").

Further information received on 4 October 2022 includes a proposed internal traffic management plan (refer Figure 3). The internal TMP shows a one way internal circulation arrangement and a proposed weighbridge. The further information states that the internal circulation is existing for the quarry and will apply for the managed fill operation. We understand some haul routes exceed 10% gradient and construction of internal roads to access the fill areas will be completed as the fill activity progresses.

The further information includes the need for a Circulation and Loading Management Plan as a condition of consent.



Figure 3: Proposed Traffic Management Plan shows internal one way arrangement and the proposed additional weighbridge located inside the site.

The existing vehicle crossing is indicated on the 2021 aerial photograph in Figure 4 below.

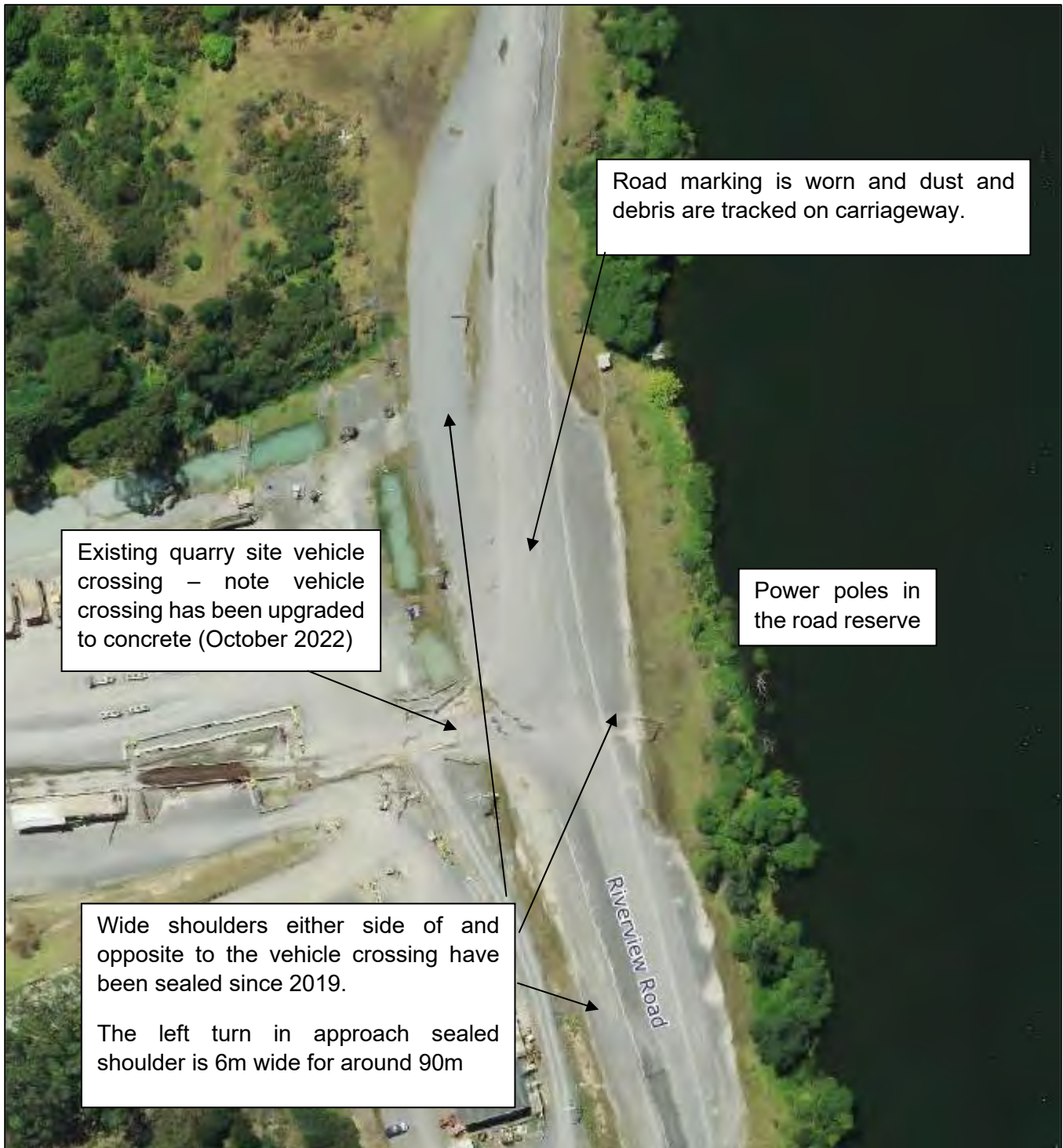


Figure 4: Aerial image of the existing vehicle crossing and Riverview Road (Waikato District intramaps).

3. Existing Environment

3.1. Activity – Consented Quarry

The TIA states that 80% of the quarry aggregate is hauled in Gleeson and Cox truck and trailer units and states that the consented quarry activity at 1.8MT/yr, 28T per unit, 276 working days per year, generates 466 daily truck movements.

Our previous assessment³ for the quarry S127 change of conditions was based on the total maximum daily trips increasing from 392 to 504 per day. We have based our assessment on the current quarry activity

³ Letter to Nicola Laurenson, WDC, dated 4/8/19

generating 504vpd. Directions from counts appear to indicate more traffic turning left out (north) but varying from 50% to 80%. Our assessment is based on traffic assignment of 50% (north), 50% (south).

3.1.1. Existing Consent LUC 0035/11.05

LUC 0035/11.05 PC6b allows the hours of operation related to truck movements to and from the site entrance on weekdays between 5am and 8pm (1 October to 30 April) and 5am to 6pm (1 May to 30 September) and 6am to 3pm on Saturdays. PC6c restricts truck movements to 12⁴ during the weekday hour 5am to 6am. PC14a restricts maximum vehicle movements at the vehicle crossing to 60 vph.

PC16a requires the Heavy Vehicle Impact Fee to be reviewed and reassessed every 19.35MT (approx.) of aggregate extraction.

PC17 requires the consent holder to take all practicable steps to ensure debris is not tracked or spilled on to Council roads. The condition requires the consent holder to take whatever actions are necessary to modify the operation of the quarry so that debris is not tracked or spilled on to public roads. In the event that debris is tracked the condition requires the consent holder to clean up the road. The condition requires the consent holder to maintain a log of road clean ups.

PC17a requires a truck wash to be installed internally and sealing to the seal edge of Riverview Road. An operating procedure for the wheel wash is required by PC17c.

3.2. Surrounding Network

Riverview Road is a local road in the Proposed District Plan (Decisions Version) road hierarchy (Part 2 TRPT) and a primary collector (lower AADT) in the ONRC⁵. At the location of the one-lane bridge south of the site (approximately 630m south) it becomes Hakarimata Road. Current traffic volumes⁶ on the surrounding network are:

- = 1,464 vpd and 9% heavy vehicles north of the site on Riverview Road; and
- = 1,970 vpd and 12% heavy vehicles south of the site on Hakarimata Road.

3.3. Vehicle access and internal circulation

During my site visit on 20 June 2022, I observed truck and trailer movements at the vehicle crossing. There is a marked right turn bay for southbound vehicles approaching the site. There are wide shoulders on the left turn in approach and the left turn out departure. There is a wide sealed area opposite the vehicle crossing. The wide shoulders on the approach and departures and opposite the vehicle crossing have been sealed since our assessment in 2019.

⁴ Note that the condition PC6c states “12 per day” which is a typo. It should be “12 truck movements per hour”.

⁵ Mobileroad.org accessed on 17/10/2022—estimate dated 23/1/2020

⁶ Mobileroad.org accessed on 17/10/2022—estimate dated 23/1/2020



Figure 5: Existing vehicle crossing to the Quarry site (20 June 2022)

I also visited the Riverview Road site entrance on Sunday 8 October 2022. The vehicle crossing has been upgraded to a concrete pavement as shown in the photograph in Figure 5 below. The gate was open, however I did not observe any vehicle movements at the vehicle crossing.



Figure 6: Existing vehicle crossing has recently been upgraded to concrete. Note the temporary speed limit and road sweeper sign (8 October 2022)

While on site I noted temporary traffic management signage indicating a road sweeper and a 30 km/hr temporary speed limit. I did not witness the road sweeper or any other similar activity. The sign arrangement did not meet the requirements of the Code of Practice for Temporary Traffic Management (CoPTTM).

The road marking is worn and difficult to see due to tracking of dust and loose metal on the carriageway at the vehicle crossing. This is apparent in the aerial photograph, refer Figure 3 above.

In June 2022 I observed potholing and ponding on the surfacing within the left turn in approach shoulder and the vehicle crossing. This has been repaired where the vehicle crossing has been upgraded to concrete. While there have been some repairs to the potholes in the shoulders, there is still evidence of potholes and patching which poses a safety hazard.



Figure 7: Left turn approach 6m wide sealed shoulder. There is pot holing and evidence of patching. (LHS: June 2022 and RHS: October 2022)

Some of the line marking was difficult to see and with the recently sealed shoulders the overall width of seal varies, around 25m - 28m. This is significantly wider than the marked carriageway with two lanes and right turn bay (around 12m).



Figure 8: Wide sealed area at the vehicle crossing is used by departing trucks to secure/cover loads etc. There is loose aggregate on the surface. (Photo June 2022)



Figure 9: Wide sealed area opposite the vehicle crossing has evidence of potholing. (Photo October 2022)

North of the vehicle crossing, the left turn out departure shoulder is sealed, and is at a higher level than the carriageway with an unsealed area separating the carriageway and the shoulder and housing a power pole.



Figure 10: Power pole located in grass berm between the carriageway and the left turn out departure shoulder (Photo June 2022)

During my site visit on 20 June 2022, I observed seven trucks and two light vehicles (ute and van) at the vehicle crossing over a 20 minute period between approximately 9.20am and 9.40am⁷. One of the trucks was a single truck unit and the rest were truck and trailers. The movements were roughly evenly split between southbound and northbound directions. Two truck and trailer units arrived in close succession, both right turning in to the site and the second truck entering the gate 25s after the first truck. I did not witness any delays to the following truck or queuing at the gate.

The gates are set back around 20m from the edge of the traffic lane and the weighbridge is set inside the site around 50m from the gates. We are not aware of any operational problems with the internal circulation arrangement although on my previous site visit (in 2019) I observed an outgoing truck waiting for a truck to enter before exiting. It would be desirable to confirm that two opposing truck and trailer units can manoeuvre through the gates. The TIA states that the weighbridge can process 30 vph. The further information provided indicates that the new clean fill trucks will use the new weighbridge. This will avoid the need for clean fill trucks entering the site using the existing weighbridge.

There appears to be space inside the gate for vehicles to wait or park if the existing weighbridge is not available. However, there appear to be low walls that need to be manoeuvred around if trucks are not driving on the weighbridge (refer to Figure 5 above). The weighbridge ramp and position of the low walls just inside the gates reduces the available manoeuvring space inside the gates. There is a risk of trucks waiting in the wide unsealed shoulder if the weighbridge capacity is exceeded, or if opposing trucks cannot manoeuvre inside the gate around the low walls. However, the proposed weighbridge for clean fill trucks is located further within the site (refer Figure 3) and the internal one-way arrangement will reduce the risk of trucks needing to queue or wait within the road reserve.

The shoulders are sealed, but there is evidence of loose chip and debris and dust being tracked onto the road (refer Figures 5-10 above). Trucks use the sealed shoulders for merging when leaving the site as well as using the wide shoulder area opposite the vehicle crossing to park while covering loads etc after exiting the site. It is preferred that trucks cover and secure loads prior to exiting the site. Further information provided from the Applicant states that the Fill and Site Management Plan and the Asbestos Fill Management Plan will address the need and procedures for covered loads. We recommend that the condition includes that clean fill loads are to be uncovered within the site avoiding the need for trucks to park in the adjacent shoulders on Riverview Road.

The visibility at the existing vehicle crossing does not meet the current Proposed District Plan standards for minimum sight distance for a posted 100 km/h speed limit⁸. Sight distances are restricted by horizontal curves in both directions and the available sight distance⁹ is around 160m to the south and 270m to the north. There are truck warning signs in advance of the quarry and we would expect the operating speed to be less than 110 km/h due to the horizontal curvature and presence of trucks. The Waka Kotahi Megamaps Edition III indicates the operating speed on Riverview Road is 79.8 km/h. Stopping Sight Distance (SSD¹⁰) is the distance to enable a normally alert driver, travelling at the design speed on wet pavement, to perceive, react and brake to a stop before reaching a hazard on the road ahead. The available sight distances exceed the minimum safe stopping distances for trucks and cars¹¹ on sealed roads with a design speed of 90 km/h.

The Waikato District Council, as Road Controlling Authority, has recently adopted speed limit changes through the bylaw process. Council staff have advised that this section of Riverview Road, south to the one-way bridge has been included and the posted speed limit will be reduced to 60 km/hr¹². The recommendations

⁷ Note that I was not at the vehicle crossing for the entire duration as I drove along Hakarimata Rd as well.

⁸ For a 110 km/h design speed minimum sight distance is 290m from a vehicle crossing generating more than 40 movements per day.

⁹ Measured off aerial photographs.

¹⁰ Austroads Guide to Road Design Part 3 (2021)

¹¹ For cars: $R_t = 2.5s$, $d=0.36$ SSD = 151m. For trucks: $R_t = 2s$ $d=0.29$ SSD = 160m.

¹² https://www.waikatodistrict.govt.nz/docs/default-source/classifieds/220503-p-r-open-agenda.pdf?sfvrsn=98f89ec9_1

were adopted by Council on 23 May 2022¹³. I have spoken to WDC staff who have confirmed they expect the new speed limit signs to be installed within the next month.

3.4. Crash History

The TIA provided the recent 5 year (2017-2021 and including 2022) crash history from the Waka Kotahi crash analysis system (CAS). The search included Riverview Road for 3km to the north and 3km to the south including Hakarimata Road. There do not appear to have been any crashes relating to the vehicle crossing. Two crashes south of the site involved trucks. One of the crashes occurred at 10.25pm and is unlikely to have involved a quarry truck and the other crash involved a car crossing the centreline into the path of a truck unit. The crash history does not indicate a particular safety issue at the vehicle crossing.

4. Trip Generation

The TIA is based on 466 truck movements from the existing quarry. The TIA expects that 80% of fill trucks will be Gleeson and Cox trucks that are currently arriving empty and loading with aggregate as part of the existing quarry operation. The applicant expects that only 20% of the clean fill movements will be new to the network, arriving to the site with a load of fill material and departing empty. However, the TIA also states:

“For convenience and to have a measure of confidence in the actual trucks numbers it has been assumed that all truck movements by the clean fill are additional trips on top of the existing quarry trips. In reality the number of trips will be considerably fewer than those estimated below as it is expected that a high percentage of trucks will want to carry a back load of metal rather than return to their site empty.”

Table 7: Turning movements at the entrance

	Left in	Left out	Right In	Right out
Quarry 466 trips	116	116	116	116
Fill 120 trips	30	30	30	30
Total Number	146	146	146	146

Figure 11: Turning Movements from Quarry and Clean fill Traffic (Table 7 of the TIA) shows 564vpd

The additional movements resulting from the proposed clean fill activity is not clear in the TIA. The TIA Table 7 assigns the clean fill truck movements at the vehicle crossing as 120 additional movements, however then assesses the trip generation at the weigh bridge as 24 additional trips. We note that the AEE paragraphs 15.3.3 and 15.3.4 and Figure 8 are based on 24 additional trips.

The Further information confirms that the Applicant’s expectation is for almost all trucks to be backloaded. The application is on the basis of 24 additional truck movements per day.

We note that the first few years are expected to generate fewer new trips to the network because 150,000-200,000m³ of overburden per year will be disposed internally within the site (from the quarry area to the fill areas). However, in the future, we consider the applicant’s expectation of 80% of loads being backloads may overstate the backloaded trips. We consider that 50% of the trucks being used for both clean fill and aggregate loads and in a mix of truck and trailers is a more appropriate scenario to assess the impacts of the clean fill traffic. We would expect the fill activity to be in a mix of truck units and truck and trailer units because contract details including site features and constraints at the origin are likely to influence whether trucks or truck and trailers can be used.

We expect that the new trips generated by the clean fill activity could be around 60-70vpd¹⁴, around 6-7 additional trips/hour¹⁵ if operating at the annual maximum and averaged out over the year. Our assessment is based on 60-70 vpd, an increase of around 12% compared to the existing consented quarry trucks.

¹³https://www.waikatodistrict.govt.nz/docs/default-source/meetings/minutes-2022/220523-ccl-open-unconfirmed.pdf?sfvrsn=52259ec9_1

¹⁴ Based on average of 15-18 m³ per load and 50% being Gleeson and Cox empty aggregate trucks.

¹⁵ Based on 10 hours of operation -noting that there are 15 hours of operation, however the TIA states that the bulk of the movements will be made between 7am and 5pm (section 5.1 of the TIA)

The TIA states that the assignment will be 50% to/from the north and 50% to/from the south. This appears reasonable and consistent with my observations on 20 June 2022 and previous assessments.

The TIA states that the weighbridge capacity is around 30 vph. The TIA states that a second weighbridge will be required in the future and considers the timing of the installation of a second weighbridge is an operational matter to be decided by the operator. The further information provided shows the location for the second weighbridge but does not include the timing of the installation. The TIA states that any delays in the installation will impact on internal operations and not impact on the road network. There is limited internal queuing space between the gate and the existing weighbridge. In my view, there is a risk of delays at the weighbridge causing trucks queuing or waiting on Riverview Road. However, the proposed weighbridge for clean fill trucks located within the site (refer Figure 3) and the internal one-way arrangement will reduce the risk of trucks needing to queue or wait within the road reserve.

The expected daily quarry traffic of 504vpd over the operating hours (13-15 hours) is around 30 vph. Although not all trucks will need weighing, the introduction of the managed fill loads (inbound) will need to be accommodated along with the existing quarry operation. We recommend that a Circulation and Loading Management Plan be prepared and implemented to demonstrate how internal circulation and heavy vehicle activities in the vicinity of the weighbridge will be managed to avoid any impacts on Riverview Road such as queuing or parking within the widened shoulders. Ideally, the trigger for installing the second weighbridge should be included as a condition of consent but alternatively managing potential congestion at the weighbridge could be a requirement of the Circulation and Loading Management Plan (e.g. inbound priority).

5. District Plan Assessment

The Applicant has provided an assessment against the Proposed District Plan Part 2, TRPT R1 – R4. The Application site is subject to current consents and the vehicle crossing is formed with a right turn bay. I have not completed a full review against the District Plan requirements relevant to transportation.

6. Submissions

Table 1 below summarises the transport topics raised, with our comment/response. A table outlining each submitter and transport topics is appended to this letter. The main issues relate to the existing quarry activity:

Transport concern	Our comment/response	Mitigation/Condition needed?	Suggested Condition/Action
Hours of truck movements.	<p>The proposed operational hours of the clean fill activity are the same as the existing quarry.</p> <p>If all of the clean fill trucks were to coincide with the peak hour, there is potential for significant increase in hourly movements. This scenario is very unlikely as the Applicant expects most clean fill trucks to backfill with aggregate.</p>	Yes.	Condition that restricts all movements at the vehicle crossing to match LUC 0035/11.05 PC 6c. (12vph on weekdays 5am-6am) and PC 14a (maximum of 60vph).
Damage to pavement/infrastructure (including Tainui Bridge, roundabout connecting Tainui bridge to Huntly West, Great South Road and Tainui Bridge Road).	<p>The clean fill proposal results in a small increase in trucks compared to the existing quarry activity (around 12%). Road maintenance is the responsibility of WDC as RCA.</p> <p>We recommend repairs at the vehicle crossing where there is damage from quarry trucks.</p> <p>The clean fill proposal results in a small increase in trucks at the vehicle crossing and reduces away from the site as the trucks disperse on the network. Pavement impacts have been considered and have already been accounted for by the quarry consent Heavy Vehicle Impact Fee.</p>	Yes.	<p>Condition requiring monitoring and reporting the number of backloads.</p> <p>Condition requiring pavement and surfacing reinstatement at the vehicle crossing and Riverview Road.</p>
Dust, noise and vibration from trucks	<p>Noise and vibration are amenity effects arising from traffic, rather than a direct traffic effect.</p> <p>However, the speed limit on Riverview Road will be reduced to 60 km/hr which should also have benefits in reducing noise and vibration.</p> <p>The existing quarry activity consent conditions require a wheel wash. Existing concerns are a consent monitoring and enforcement issue.</p>	Yes. Monitoring and enforcement of existing quarry conditions relating to wheel wash, dust and debris.	Condition of consent to prevent dust and debris being tracked on to the road network.
Sediment on road and road markings	<p>The existing road markings are worn and there is evidence of debris being tracked on to the road. The existing shoulders are wide and we recommend a refresh of road markings as well as additional markings in the shoulders to better define the traffic lanes and discourage use of the shoulders.</p>	Yes.	<p>Condition of consent to prevent dust and debris being tracked on to the road network.</p> <p>Condition requiring pavement and surfacing reinstatement and line marking improvements at the vehicle crossing.</p>

Transport concern	Our comment/response	Mitigation/Condition needed?	Suggested Condition/Action
Congestion and inconvenience caused by the volume of trucks and vehicles cleaning the road	<p>The clean fill proposal results in a small increase in trucks compared to the existing quarry activity, around 5-10% of the existing quarry activity. Riverview Road has capacity to accommodate the additional trucks.</p> <p>We observed the temporary traffic sign (road sweeper) and temporary speed limit at the vehicle crossing on a Sunday when there was no work occurring. Recommend including an advice note to cover off the need for a Temporary Traffic Management Plan approved by WDC as RCA.</p> <p>The existing quarry consent (LUC 0035/11.05 PC17) requires the consent holder to remediate any debris if it is tracked on to the road. The consent condition also requires the consent holder to take action to modify the operation of the quarry so that debris is not tracked or spilled onto Riverview Road.</p> <p>This is an issue relating to the existing activity and appears to be a monitoring and enforcement issue.</p>	No.	Include advice note relating to temporary traffic management plan for generic road cleaning activities
Speed of trucks	<p>Waikato District Council has recently adopted speed limit changes through the bylaw process. Council Roding staff have advised that this section of Riverview Road, south to the one-way bridge has been included and the posted speed limit will be reduced to 60 km/hr . The reduction in speed environment will be a safety improvement to all users.</p> <p>Compliance of drivers to the speed limit is an enforcement issue addressed by NZ Police, separate to this RMA consent process.</p>	No.	
Safety issues for pedestrians and cyclists	<p>The proposed clean fill activity results in a small increase in trucks traveling along Riverview Road compared to the existing quarry. There are no pedestrian or cycle facilities along the section of Riverview Road adjacent to the quarry and there are low user numbers in proportion to existing traffic.</p> <p>The risk to pedestrians and cyclists as a result of the small increase in clean fill trucks is low given the low demand, lack of existing facilities and rural nature of the area. The reduction in posted speed limit to 60 km/hr on Riverview Road will improve safety for all users.</p>	No.	

Table 1: Review of Transport Related Submission Topics

7. Discussion

7.1. Pavement Impacts

The proposal is for additional loaded trucks, and these will be incoming loads, so there is the opportunity for backloads with the existing aggregate extraction activity. The applicant expects 80% backloads. However, we consider that 50% is a more appropriate basis for assessment (extra 30 loaded trucks in and empty trucks out). The inbound clean fill trucks mean there will be additional loading on the pavement and thus an adverse effect on the road pavement. Exiting empty trucks also place an additional demand on the pavement. The existing quarry operation includes, on a daily basis, 252 inbound empty truck movements and the same 252 trucks leaving full (maximum daily). The proposal could mean an extra 60 loaded trucks in and empty trucks out if there are no backloads.

We understand that the quarry consent conditions require a total payment (on a lump sum basis) of \$188,927 (condition PC16) to be reviewed and reassessed at 19.35 MT. Our previous assessment of the heavy vehicle impact fee for the quarry considered the renewal costs for the full width of pavement. The impact of loaded incoming trucks (cleanfill) on pavement condition (in the other lane/opposite direction) has been accounted for by the quarry since the lump sum HIF has already been paid for. Based on a comparison of pavement loading (equivalent standard axle loads (ESAs)), the additional pavement loading by the clean fill trucks is an increase of around 5.5%, likely to be insignificant in terms of pavement design¹⁶. Pavement design depth is not directly proportional. The increase in design depth relates to increased loading on an exponential (fourth power) basis.

We recommend that monitoring and reporting the backloads be a condition of consent of the proposed managed fill operation to ensure the impacts on the pavement do not exceed the expected for the quarry. This may be in the form of review condition for monitoring/responding to the fill rate and the available reserve in the site.

7.2. Manoeuvring at the vehicle crossing

There is a risk of queuing on Riverview Road if two opposing truck and trailer units cannot simultaneously manoeuvre through the gates and into the site. The vehicle crossing arrangement should be altered to clearly and continuously allow two-way access. The shoulders have been sealed and the vehicle crossing upgraded to concrete, however there is still evidence of loose metal being tracked and there is potholing in the shoulders and along the seal join.

The left turn in shoulder is 6m wide. To ensure the use of the sealed shoulders are appropriately used and do not adversely impact on the operation of Riverview Road, and to ensure lane assignment is obvious to drivers of through vehicles, we recommend a refresh of the road marking as well as additional marking. The recommended work is:

- = The existing centreline, edgeline and right turn bay markings should be remarked.
- = The edge lines and continuity lines should be 200mm wide to improve conspicuity and reduce the risk of tracked aggregate and dust obscuring the markings.
- = The left turn in approach shoulder has a seal width of 6m. This is a very wide shoulder (wider than a traffic lane) and to ensure the shoulder is appropriately used by trucks decelerating to turn left into the vehicle crossing, and not used by parked/waiting vehicles, diagonal shoulder markings¹⁷ and no stopping lines¹⁸ should be included.
- = The sealed left turn out shoulder should be marked with diagonal shoulder markings adjacent to the edgeline at the vehicle crossing and where it merges north of the power pole.

¹⁶ Refer to Gray Matter memo to WDC dated 9/3/20 "Gleeson and Cox Proposed Managed Fill, Riverview Road, Huntly. Heavy Vehicle Impact"

¹⁷ In accordance with MOTSAM Part 2, Markings 2.04.02

¹⁸ In accordance with MOTSAM Part 2 Markings, 2.11.01

- = To ensure the opposite wide sealed shoulder is used appropriately and parked trucks do not obscure visibility for through vehicles, 2.5m wide diagonal shoulder markings should be marked.

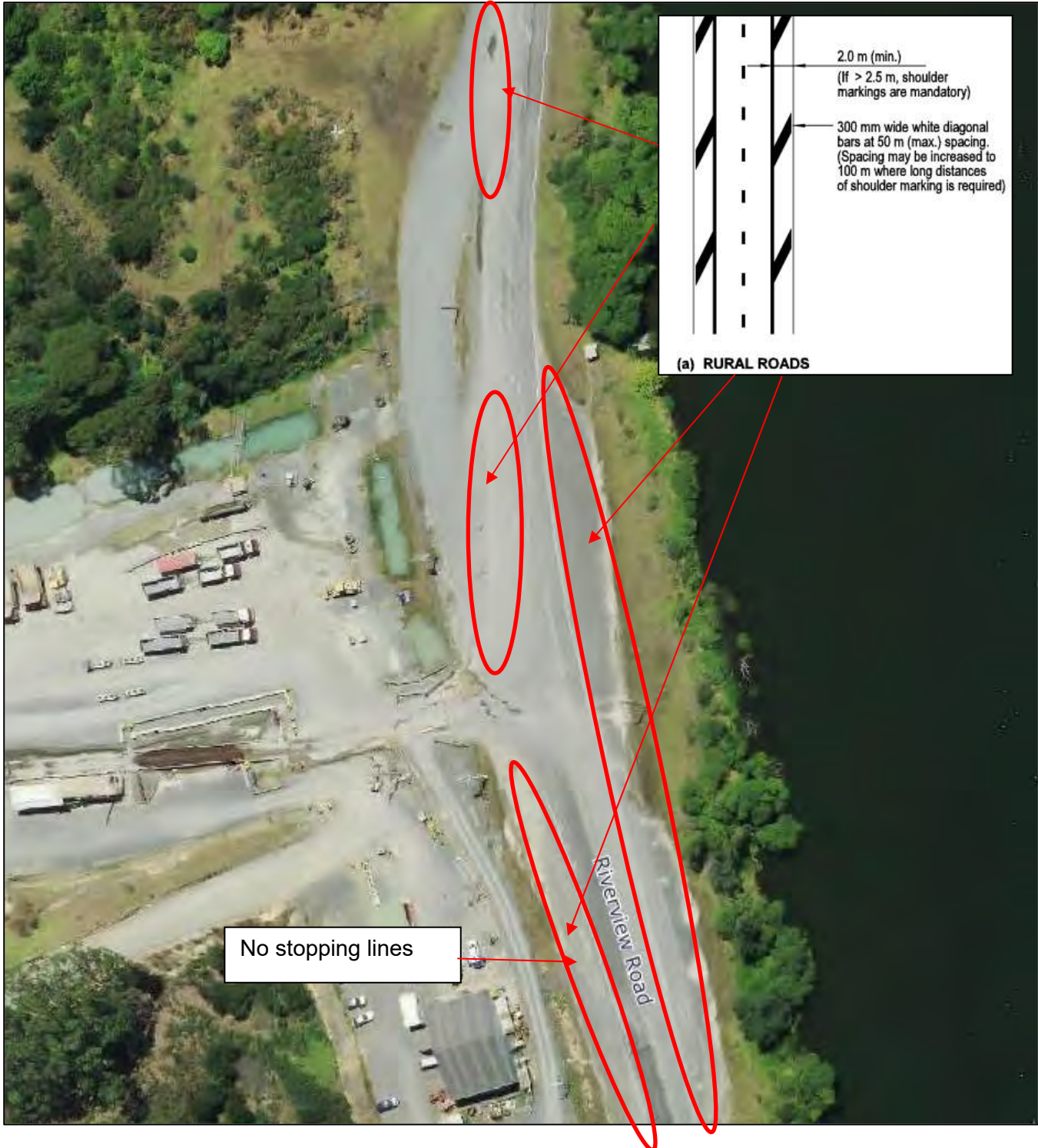


Figure 12: Recommended indicative locations diagonal shoulder markings and no stopping lines

8. Evaluation of Transportation Impacts

The proposed managed fill will add trucks to the network. Our assessment of the potential adverse transportation effects are summarised below:

Transportation Impact	Discussion	Significance
Efficiency – additional trips on the surrounding network	<p>Extra 60-70 vpd represents 4-5% of the existing network traffic. There is sufficient spare capacity on Riverview Road to accommodate the additional traffic, even if all the clean fill trucks were new trips (i.e. no backloads, 120 vpd).</p> <p>Backloading the clean fill trucks with aggregate could potentially be considered a positive effect, reducing the overall number of trips on the wider network, compared to separate clean fill disposal.</p> <p>We consider that improvements including new line marking and repairing the seal could be implemented to improve the operation at the vehicle crossing.</p>	Low
Safety – vehicle crossing	<p>There does not appear to be a crash issue at the vehicle crossing.</p> <p>However, there will be more loaded trucks on the network and there is a slightly higher risk of a crash involving a truck resulting in a serious injury. The incremental impact of additional traffic increases the likelihood of deaths and serious injuries and is contrary to the GPS Vision Zero approach of pursuing a reduction.</p> <p>The existing sight distance to the south is limited by the horizontal curve on Riverview Road and bank in the verge. However, the posted speed is being reduced to 60 km/h and the available sight distance is sufficient for the existing and expected speed environment.</p> <p>We recommend reinstating the line marking including new shoulder markings and reinstating damaged pavement and surface at the vehicle crossing.</p>	Low
Safety – cyclists and pedestrians	<p>The increased number of trucks increases risk to pedestrians and cyclists who are very vulnerable to injury. There are no existing facilities for cyclists or pedestrians and there are very low user numbers in proportion to existing traffic.</p>	Low
Internal circulation, parking and loading	<p>There is sufficient space within the site for circulation and loading. However there are constraints (weighbridge ramp and low walls) immediately inside the gates meaning that operation through the gates is effectively one way. This can lead to trucks using the unsealed shoulders to queue before entering. We have observed trucks parking in the shoulders to cover or uncover loads prior to entering/after exiting the site.</p> <p>The existing weighbridge capacity is expected to be exceeded with the additional trucks from the proposed clean fill and the internal traffic management arrangement shows the location of a second weighbridge. However the timing or trigger for the second weighbridge is not apparent. There is a risk of queuing on Riverview Road if the internal circulation arrangement, particularly at the existing weighbridge is not adequately managed.</p> <p>We recommend that a Circulation and Loading Management Plan be prepared and implemented to demonstrate how internal circulation will be managed to avoid any impacts on Riverview Road such as queuing or parking within the widened shoulders. This should include inbound priority and vehicle swept paths to demonstrate opposing truck manoeuvres through the gate and on to the circulation road if not going over the weighbridge. It would be prudent to document the existing activity and include triggers/ layout/ timing (e.g. second weighbridge prior to 30 HVph) for the future layout and internal circulation arrangement. Conditions should require covering and uncovering loads within the site to avoid parking in the shoulders.</p>	Low

Transportation Impact	Discussion	Significance
Pavement impacts	<p>The additional traffic loading will deteriorate the pavement faster. The TIA expects that this additional loading will need to be factored into the Heavy Vehicle Impact fee structure.</p> <p>There will be additional loading on the pavement, however the loading is concentrated to inbound loads and directions, which has already been accounted for by the HIF (LUC 0035/11.05 PC16) being based on both lanes being renewed when triggered by either side. The increase in axle loading resulting from empty clean fill trucks leaving the site is around 5.5%, resulting in an insignificant pavement depth increase to accommodate it.</p>	Low-medium
Dust and detritus on road	<p>The existing activity includes a wheel wash. However, there is evidence of dust and debris being tracked out of the site.</p> <p>A condition of consent to prevent dust and debris being tracked on to the road should be included.</p> <p>Refreshing the road markings including new diagonal shoulder markings and 200mm wide edge lines will improve conspicuity and reduce the risk of tracked aggregate and dust obscuring the markings.</p> <p>Seal repairs should be completed where there is evidence of surface damage such as edge break, potholes and water ponding.</p>	Low

Table 2: Evaluation of Transportation Impacts

The potential traffic associated with the managed fill activity will increase the potential for conflict and crashes, but the proposal is for a relatively small increase, is complementary with the existing activity and the posted speed limit will be reduced to 60 km/h. Allowing backloading reduces the potential number of additional trips.

The additional loads associated with the managed fill activity will accelerate pavement deterioration slightly. However we consider that the inbound loading is likely to have been accounted for in the HVIF lump sum payment under the LUC 0035/11.05 quarry consent.

9. Recommended Conditions

We recommend that conditions be included to cover:

- = Maximum total vehicle movements at the vehicle crossing (60 vph and 12 vph during 5am-6am)
- = Methods to prevent dust and debris being tracked on to the road network and remove and clear the road of debris when required by WDC.
- = Preparation and implementation of a Circulation and Loading Management Plan that demonstrates how the internal quarry/clean fill operation will be managed to avoid any impacts on Riverview Road such as queuing or inappropriate parking within the widened shoulders. The Circulation and Loading Management Plan shall :
 - o Demonstrate swept paths of opposing truck manoeuvres through the gate and within the site. This should include tracking for vehicles not traveling over the weighbridge.
 - o Identify holding/waiting areas for trucks waiting for the weighbridge
 - o identify triggers/ timing of the second weighbridge.
 - o How inbound truck movements will be prioritised at the weighbridge
 - o Document how driver behaviour will be managed to ensure that queuing does not occur within the shoulders.
 - o Include monitoring and reporting the number of backloads to Council.
 - o Include a requirement that the removal and replacement of trailer tarpaulins/load covers is completed within the site.
 - o Not allow waiting /queuing in the shoulders of Riverview Road at the vehicle crossing.

- = Reinstatement of and new line marking on Riverview Road within 200m of the entrance. This shall include new diagonal shoulder markings, no stopping lines and 200mm wide edgelines.
- = Repair of damaged pavement and surfacing on Riverview Road at the locations indicated on Figure 12 above.
- = Alter vehicle crossing and internal access roads to provide two way operation over a minimum of 60m from the edgeline of the nearest lane on Riverview Road.

10. Conclusion

Subject to appropriate management, the proposal is unlikely to lead to unacceptable adverse safety and efficiency effects as long as the operational aspects are managed to ensure that there is no queuing on Riverview Road. Conditions are required to ensure that dust and debris is not tracked onto the road, the Riverview Road shoulders are repaired and the line marking is remarked with additional markings at the vehicle crossing.

Should WDC approve the application, it should be subject to the conditions outlined in section 9 above.

Please contact me if you have any questions.

Yours sincerely



Naomi McMinn
Civil/Transportation Engineer



Alastair Black
Transportation Engineer

Attachment 1: Suggested Conditions

Attachment 1: Suggested Conditions

- i. Truck movements to and from the site entrance shall be limited to a maximum total of 12 per hour during the morning period between the time of:
 - Monday to Friday (inclusive) 5am to 6am

Note: operating hours and truck movements do not apply when an emergency is declared by the local or regional authority and metal is required as part of a civil defence response.

Advice note: this is a maximum at the site vehicle crossing applying to all site activities as a total and includes both inbound and outbound movements.

- ii. The maximum total number of truck movements at the site vehicle crossing shall not exceed 60 vehicles/hour.

Advice note: this is a maximum at the site vehicle crossing applying to all site activities as a total and includes both inbound and outbound movements.

- iii. The consent holder shall take all practicable steps to ensure debris is not tracked or spilled onto Council roads. This should include maintaining the wheel wash and the sealed pavement areas at the vehicle crossing between the Riverview Road seal edge, the wheel wash and the weighbridge. In the event that debris is tracked or spilled onto Riverview Road or any other road the consent holder shall take all necessary actions to clean any road surface and associated drainage facilities to the satisfaction of Council's Monitoring Officer. The Consent Holder shall maintain a log of road clean-ups undertaken and provide a copy of the log to Council's Monitoring Officer on a 6 monthly basis or on request. The cost of the clean-up of any roadway and associated drainage facilities, together with all temporary traffic control, shall be the responsibility of the consent holder.

Advice note: A temporary traffic management plan approved by the relevant Road Controlling Authority (RCA) is required for work on the public roads. The consent holder could seek approval of a generic temporary traffic management plan for operating the road sweeper that is revised on an annual basis, as agreed with Council as Road Controlling Authority.

- iv. At least two weeks before the commencement of this consent, the Consent Holder shall prepare and submit a Site Circulation and Loading Management Plan to Waikato District Council's Senior Land Development Engineer for approval.

The objective of the Site Circulation and Loading Management Plan is to demonstrate that the quarry/cleanfill operation will be managed to avoid any impacts on Riverview Road such as queuing or parking within the widened shoulders. The Site Circulation and Loading Management Plan shall include, but not be limited to the following:

- Demonstrate swept paths of opposing truck manoeuvres through the gate and within the site. This should include vehicle tracking for trucks not traveling over the weighbridge
- Demonstrate how inbound trucks will be prioritised at the weighbridge
- Identify holding /waiting areas within the site for trucks waiting for the weighbridge

- Identify stopping areas within the site for trucks to cover/uncover trailer tarpaulins/load covers
 - Documenting how truck driver behaviour will be managed to ensure that queuing/waiting does not occur within the Riverview Road shoulders and to direct drivers to appropriate areas within the site
 - A requirement that removal and replacement of trailer tarpaulins/load covers to be completed within the site.
 - Identify triggers/ timing for the installation and implementation of the second weighbridge
- v. The consent holder shall maintain a heavy vehicle counting system and a daily log book of all inbound truck movements depositing fill and associated outbound truck movements that occur.

The log shall contain the following:

- Registration number of vehicle
- Time of arrival
- Approximate size of the fill load deposited
- Source and type of material to be deposited
- Comments on whether the material is accepted or not
- Comment on whether the truck is backloaded with quarry material
- Time of departure
- Approximate size of the backloaded quarry material

The daily logs shall be retained on site at all times and made available for Council inspection during working hours. A copy of the information shall be forwarded to the Waikato District Council's Monitoring Team Leader on a six (6) monthly basis. The submitted information shall include totals for the number of inbound clean fill truck movements and total backloads for the six monthly period.

Detailed Design

- vi. At least twenty (20) working days prior to the Commencement of Consent detailed design of the Riverview Road shoulder repairs and line marking shall be submitted to the Council (Planning Guidance Unit Manager (or nominee)) for authorisation. The detailed design shall include the following:
- a. Repair of damaged pavement and surfacing in the Riverview Road shoulders, opposite and adjacent to the site. The purpose of the reinstatement is to prevent ponding in the shoulders and along the seal joint between the traffic lanes and the sealed shoulders and to reduce the need for ongoing maintenance.
 - b. Details of the pavement and surfacing and extent including tie ins to existing.
 - c. Details of the line marking for 200m (north and south) of the vehicle crossing, including:
 - i. New diagonal shoulder markings in the 6m wide left turn in approach shoulder in accordance with MOTSAM Part 2 Markings 2.04.02

- ii. New diagonal shoulder markings in the left turn out shoulder, adjacent to the edgeline at the vehicle crossing and where it merges north of the power pole, in accordance with MOTSAM Part 2 Markings 2.04.02
 - iii. New 2.5m wide diagonal shoulder markings in the sealed shoulder opposite, in accordance with MOTSAM Part 2 Markings 2.04.02
 - iv. No stopping lines in accordance with MOTSAM Part 2 Marking, 2.11.01
 - v. 200mm wide edgelines and continuity lines
 - vi. Remarketing of the right turn bay and centrelines
- vii. The Consent Holder shall provide a layout plan and swept paths to confirm that the vehicle crossing and internal access roads is sufficient to provide two way operation over a minimum of 60m from the edgeline of the nearest lane on Riverview Road.

Attachment 2: Table of Submitters Traffic Topics and Comments

Submitter, name, address, reference	Support/ Oppose	Submitter's comments	Relief Sought by Submitter	Our comment /response (effects)	Mitigation/Condition needed?
Anthony Ernest Perkins 125 Kimihia Rd, Huntly 002 Pages 3-4	Oppose	<ul style="list-style-type: none"> - hours of truck movements too early for town boundaries - increase in traffic from trucks will affect quality of life - damage to road - truck size, increase to 28 tons - 20% of trucks to deliver fill only 	<ul style="list-style-type: none"> - Limit trucks coming to site 	<p>Proposed operation hours are same as the quarry. Road maintenance is responsibility of WDC as RCA. We recommend repairs at the vehicle crossing. Pavement impacts have been considered and have been accounted for in the quarry consent HVIF lump sum. Increase in truck load means fewer truck movements. The 28T load applies to the existing quarry activity.</p>	<p>Condition of consent that covers all movements at the vehicle crossing to match LUC 0035/11.05 PC 6c. (12vph on weekdays 5am-6am) and PC 14a (maximum of 60vph).</p> <p>Condition requiring monitoring and reporting the number of backloads.</p> <p>Condition requiring pavement and surfacing repairs and line marking improvements at the vehicle crossing.</p>
Denise Phyllis Lamb 60 Riverside Way, Huntly 003 Pages 5-6	Oppose	<ul style="list-style-type: none"> - the road is in a bad state - walkway needs to be upgraded for safety of pedestrians and cyclists 	<ul style="list-style-type: none"> - Footpath needed for pedestrians and cyclists 	<p>Road maintenance is responsibility of WDC as RCA. We recommend repairs at the vehicle crossing. The increase in trucks increases risk to pedestrians and cyclists. There are no pedestrian or cycle facilities along the section of Riverview Road adjacent to the quarry and there are low user numbers in proportion to existing traffic.</p>	<p>Condition requiring pavement and surfacing repairs and line marking improvements at the vehicle crossing</p>
Kevin Wickens 184 Riverview Rd, Huntly 007 Pages 26-30	Oppose	<ul style="list-style-type: none"> - speed of trucks going past their gate - vibration and noise from trucks - damage to the road which is already visible 		<p>The posted speed limit will be reduced to 60 km/hr which will improve safety for all users. The reduced speed should also have benefits in reducing noise and vibration. Road maintenance is responsibility of WDC as RCA. We recommend repairs at the vehicle crossing.</p>	<p>No.</p>
Garry & Audrey Cox 96 Riverview Rd, Huntly 008 Pages 31-32	Oppose	<ul style="list-style-type: none"> - Trucks need to be covered, checks of wheel wash 	<ul style="list-style-type: none"> - Limit trucks coming to site 	<p>Existing consent conditions for the quarry require the use of the wheel wash and avoiding debris from being tracked on to the public road.</p>	<p>Condition of consent to prevent dust and debris being tracked on to the road network.</p>

Submitter, name, address, reference	Support/ Oppose	Submitter's comments	Relief Sought by Submitter	Our comment /response (effects)	Mitigation/Condition needed?
					Condition of consent for a Site Circulation and Loading Management Plan should specifically require clean fill loads to be uncovered within the site to avoid trucks parking in the adjacent shoulders on Riverview Road.
Nola Dawn Moland 18 Hillside Heights, Huntly 010 Pages 39-41	Oppose	- Truck traffic		The clean fill proposal results in a small increase in trucks traveling on Riverview Road. Backloading the clean fill trucks with quarry material means fewer trucks compared to separate clean fill and quarry sites.	No.
Bryce & Carla Mounsey 855D Hakarimata Rd, Huntly 012 Pages 45-48	Oppose	<ul style="list-style-type: none"> - the existing volume of trucks has had a negative impact on the road so having more trucks will have more of an impact - concern about trucks not adhering to the speed limit - Concern trucks acceleration rates are slow and congestion caused by trucks being slow when leaving site, - sweeper trucks clearing the dirt from the quarry off the road and additional trucks from fill activity - trucks from the quarry being a danger on the road by doing things such as failing to give way, causing lack of visibility, pulling out in front of other vehicles. - proposal will have a significant impact on the safe and efficient operation of the local road network 	- Limit trucks coming to site	<p>At 80% backloads the clean fill proposal is a small proportion of additional trucks compared to the existing quarry trucks. The posted speed limit will be reduced to 60 km/hr which will improve safety for all users. Enforcement of the speed limit needs to be completed by the Police.</p> <p>Agree that truck acceleration rates are slower than light vehicles. However, the speed environment along Riverview Road will reduce as a result of the 60 km/hr speed limit and the proposal does not result in any additional quarry trucks leaving the site so there will be no increased congestion caused by trucks being slow when leaving the site. There is sufficient capacity on the surrounding network to accommodate the additional trucks from the cleanfill. The wheel wash is an existing condition consent.</p>	<p>Condition that covers all movements at the vehicle crossing to match LUC 0035/11.05 PC 6c (12vph on weekdays 5am-6am) and PC 14a (maximum of 60vph).</p> <p>Condition requiring monitoring and reporting the number of backloads.</p> <p>Condition of consent to prevent dust and debris being tracked on to the road network.</p> <p>Condition requiring pavement and surfacing repairs and line marking improvements at the vehicle crossing</p>

Submitter, name, address, reference	Support/ Oppose	Submitter's comments	Relief Sought by Submitter	Our comment /response (effects)	Mitigation/Condition needed?
		<ul style="list-style-type: none"> - truck wash not working properly - road is in poor condition, will become worse 		Road maintenance is responsibility of WDC as RCA. We recommend repairs at the vehicle crossing. Pavement impacts have been considered and have been accounted for in the quarry consent HVIF lump sum.	
Colleen Earby 58 Kimihia Rd, Huntly 013 Pages 49-54	Oppose	<ul style="list-style-type: none"> - Increase in heavy vehicles - Damage to road and payment to repair - Speed of trucks 	<ul style="list-style-type: none"> - Monitoring to be monthly and outcomes to be public - Limit trucks coming to site 	At 80% backloads the clean fill proposal is a small proportion of additional trucks compared to the existing quarry trucks. The posted speed limit will be reduced to 60 km/hr which will improve safety for all users. We recommend repairs at the vehicle crossing. Pavement impacts have been considered and have been accounted for in the quarry consent HVIF lump sum.	<p>Condition that covers all movements at the vehicle crossing to match LUC 0035/11.05 PC 6c. (12vph on weekdays 5am-6am) and PC 14a (maximum of 60vph).</p> <p>Condition requiring monitoring and reporting the number of backloads.</p>
Kathie Shepard 927 Hakarimata Rd, Huntly 014 Pages 55-65	Oppose	<ul style="list-style-type: none"> - Hours of truck movements not appropriate - trucks cleaning dust deposited on the road creates congestion and is a danger on the 100km road 	<ul style="list-style-type: none"> - Limit trucks coming to site 	The operating hours are consistent with the existing quarry activity. Clearing up of any debris should be completed under an approved temporary traffic management plan and temporary speed restriction. The quarry consent conditions require measures to prevent debris being tracked on public roads. This issue relates to the existing quarry activity.	Condition that covers all movements at the vehicle crossing to match LUC 0035/11.05 PC 6c. (12vph on weekdays 5am-6am) and PC 14a (maximum of 60vph).
Jessica Rix 27 Hakanoa St, Huntly 015 Pages 66-70	Oppose	<ul style="list-style-type: none"> - Weight of trucks will double - Question need for trucks over 12 hours and on Saturday concerns about Tainui bridge - RUCs are likely not enough to cover the cost of repairs that 	<ul style="list-style-type: none"> - No truck movements on Saturday - No additional truck movements 	The clean fill trucks will carry around 15-18 m ³ and will vary in weight depending on the clean fill material. The existing quarry trucks carry an average of around 28T per load. Many of the clean fill trucks will already be travelling on the road	<p>Condition that covers all movements at the vehicle crossing to match LUC 0035/11.05 PC 6c. (12vph on weekdays 5am-6am) and PC 14a (maximum of 60vph).</p> <p>Condition requiring monitoring and reporting the number of backloads.</p>

Submitter, name, address, reference	Support/ Oppose	Submitter's comments	Relief Sought by Submitter	Our comment /response (effects)	Mitigation/Condition needed?
		need to be done due to damage from trucks		including Tainui Bridge to the quarry to collect aggregate. The operating hours are consistent with the existing quarry activity. The increase in trucks from the clean fill are small compared to the existing quarry activity. Pavement impacts have been considered and have been accounted for in the quarry consent HVIF lump sum.	
Gaylene Aroha Himona 26 Hakanoa St, Huntly 017 Pages 76-80	Oppose	<ul style="list-style-type: none"> - Poor quality of road is due to trucks, questions plan for mitigation - Repairs to Tainui bridge - Speed of trucks - Safety for pedestrians, cyclists - Risk to children in front yard from stone - Past near misses with trucks 	<ul style="list-style-type: none"> - Reduce hours for trucks visiting the site - Reduce number of trucks - Road quality (being responsibility of Councils and applicant). 	Road maintenance of the wider network is the responsibility of WDC. The increase in traffic from the clean fill operation is relatively small. There does not appear to a safety issue relating to truck crashes and the reduction in posted speed limit along Riverview Road to 60 km/hr will improve safety for all users.	<p>Condition that covers all movements at the vehicle crossing to match LUC 0035/11.05 PC 6c. (12vph on weekdays 5am-6am) and PC 14a (maximum of 60vph).</p> <p>Condition requiring monitoring and reporting the number of backloads.</p> <p>Condition requiring pavement and surfacing repairs and line marking improvements at the vehicle crossing</p>
Hine Lavinia & Donald Carmichael 45 Rotowaro Rd, Huntly 019 Pages 83-95	Oppose	- Increase in traffic		Small increase in trucks compared to the existing quarry activity. The backloads could be considered a positive effect as an overall reduction in trucks compared to if the cleanfill and quarry activities were on separate sites. Activities are complementary.	No.

Submitter, name, address, reference	Support/ Oppose	Submitter's comments	Relief Sought by Submitter	Our comment /response (effects)	Mitigation/Condition needed?
David Whyte - on behalf of Huntly Community Board 38 Ohinewai North Rd, Huntly 020 Pages 96-162	Oppose	<ul style="list-style-type: none"> - Traffic will not be split 50/50 north and south. Current traffic is primarily from north. Therefore TIA is invalid - Dangerous to walk or cycle along Riverview Road - Inadequate condition of footpath and lack of path 	<ul style="list-style-type: none"> - New road to take trucks away from residential roads - Washing of trucks before leaving site, not just wheel wash - Spraying road to suppress dust - Sweeping roadside and gutters - Clean signage - Cover trucks - Reduce speed of trucks to 50km/h - Limit hours of operation - New bridge - Build a footpath 	<p>The assessment provided and the observations we have made support 50/50 split north/south. This seems reasonable given the catchment and activity in the area. Even if the split was higher to the north, the effects of the small increase in truck traffic from the proposed cleanfill are unlikely to trigger any additional mitigation. The existing road network has capacity to accommodate the additional trucks. New infrastructure comes at very high cost, disproportionate to the small increase in trucks. There are no pedestrian or cycle facilities along the section of Riverview Road adjacent to the quarry and there are low user numbers. The posted speed limit on Riverview Road will be reduced to 60 km/hr which will improve safety for all users.</p>	Condition of consent to prevent dust and debris being tracked on to the road network.
Tiffany Whyte PO Box 234 Huntly 022 Pages 165-176	Oppose	<ul style="list-style-type: none"> - Current activity is causing damage and need for closures of Tainui bridge. Damage also to roundabout connecting 	<ul style="list-style-type: none"> - Limit trucks coming to site 	Concerns are related to the existing quarry activity. The proposed clean fill traffic is small compared to the existing	No.

Submitter, name, address, reference	Support/ Oppose	Submitter's comments	Relief Sought by Submitter	Our comment /response (effects)	Mitigation/Condition needed?
		<p>Tainui bridge to Huntly West, Great South Road and Tainui Bridge Road</p> <ul style="list-style-type: none"> - Inconvenience to locals, safety issue and causing damage to vehicles. 	<ul style="list-style-type: none"> - Applicant should pay for repairs or build their own bridge 	<p>quarry and the existing network has spare capacity to accommodate the additional trucks. Pavement impacts have been considered and have been accounted for in the quarry consent HVIF lump sum.</p>	
<p>Seli Salararaba Scutts 206 Riverview Rd, Huntly 023 Pages 177-178</p>	<p>Oppose</p>	<ul style="list-style-type: none"> - Speed of trucks is over 100km/h - Trucks create vibration 	<ul style="list-style-type: none"> - Install hump on road between subject site and Huntly township 	<p>The posted speed limit on Riverview Road will be reduced to 60 km/hr which will improve safety for all users. Installing a road hump may cause vibration from trucks and is likely to become a maintenance issue due to the high proportion of trucks.</p>	<p>No.</p>
<p>Robert Hunt 319B Rotowaro Rd, Huntly 024 Pages 179-180</p>	<p>Oppose</p>	<ul style="list-style-type: none"> - Current activity causing damage to roads, proposal seeks to increase - Hours of truck movements causes disruption to locals 	<ul style="list-style-type: none"> - Limit trucks coming to site 	<p>Clean fill proposal results in small increase in trucks compared to the existing quarry activity. Pavement impacts have been considered and been accounted for in the quarry consent HVIF lump sum. The operating hours are consistent with the existing quarry activity.</p>	<p>Condition that covers all movements at the vehicle crossing to match LUC 0035/11.05 PC 6c. (12vph on weekdays 5am-6am) and PC 14a (maximum of 60vph). Condition requiring monitoring and reporting the number of backloads</p>
<p>Freeway Design Limited Quay Chambers, Level 7, 2 Commerce St, Auckland 025 Pages 181-184</p>	<p>Oppose</p>	<ul style="list-style-type: none"> - Increase in volume of trucks from Great South Road via Tainui bridge will impact access to submitters hotel 	<ul style="list-style-type: none"> - Prevent trucks accessing Riverside Road via Tainui Bridge 	<p>The proposed clean fill traffic is small compared to the existing traffic volume on Great South Road, likely to be fewer than 10 additional trucks on Great South Road traveling past the Tregoweth Lane signalized intersection. The existing network has spare capacity to accommodate the additional trucks.</p>	<p>No.</p>

Submitter, name, address, reference	Support/ Oppose	Submitter's comments	Relief Sought by Submitter	Our comment /response (effects)	Mitigation/Condition needed?
Nicola Anne Maplesden Nicola.maplesden@gmail.com 027 Pages 194-199	Oppose	<ul style="list-style-type: none"> - Increase in trucks are incompatible with increasing residential development in the area - Increase safety risk to residents and increased risk to poor quality of the road 	<ul style="list-style-type: none"> - Limit trucks coming to site 	<p>The posted speed limit on Riverview Road will be reduced to 60 km/hr which will improve safety for all users.</p> <p>The quarry site is established and the proposed clean fill activity is complementary and results in a small increase in trucks compared to the existing quarry activity. Pavement impacts have been considered and have been accounted for in the quarry consent HVIF lump sum.</p>	Condition that covers all movements at the vehicle crossing to match LUC 0035/11.05 PC 6c. (12vph on weekdays 5am-6am) and PC 14a (maximum of 60vph). Condition requiring monitoring and reporting the number of backloads
Melissa McDonald 166 Riverview Rd, Huntly 028 Pages 200-205	Oppose	<ul style="list-style-type: none"> - Concern over safety of increased trucks on the road-existing near misses - Speed of trucks over 70km/h - Not safe to walk or cycle on Riverview Road - Risk from stones thrown from trucks - Hours of trucks 	<ul style="list-style-type: none"> - Limit trucks coming to site - Footpath from quarry to connect to footpath by Taxi hill plus safe place to cross - Reduce speed of trucks to 50km/h - No Saturday or Sunday work 	<p>The posted speed limit on Riverview Road will be reduced to 60 km/hr which will improve safety for all users..</p> <p>There are no pedestrian or cycle facilities along the section of Riverview Road adjacent to the quarry and there are low user numbers The operating hours are consistent with the existing quarry activity.</p>	Condition that covers all movements at the vehicle crossing to match LUC 0035/11.05 PC 6c. (12vph on weekdays 5am-6am) and PC 14a (maximum of 60vph). Condition requiring monitoring and reporting the number of backloads.

Submitter, name, address, reference	Support/ Oppose	Submitter's comments	Relief Sought by Submitter	Our comment /response (effects)	Mitigation/Condition needed?
Te Kauri Marae Trust 163 Hetherington Rd, Huntly 029 Pages 206-207	Oppose	- traffic	- Limit trucks coming to site		No.
Lorrel & Alex Mowles 130 Riverview Rd, Huntly 030 Pages 208-210	Oppose	<ul style="list-style-type: none"> - Driveway from property is concealed and current safety concerns when encountering trucks. Increased trucks will make this worse - Trucks not adhering with speed limit - Current activity causing damage to road including Tainui Bridge and Riverview Road - Increase in material on the road from trucks - Current activity creates disturbance from 6.30am 		<p>This is an existing issue and the small increase in trucks from the proposed clean fill activity is unlikely to result in a disproportionate safety issue. Speed enforcement is a separate process to this consent and needs to be completed by the NZ Police.</p> <p>Existing consent conditions for the quarry require the use of the wheel wash and avoiding debris from being tracked on to the public road.</p> <p>The quarry consent conditions require measures to prevent debris being tracked on public roads. This issue relates to the existing quarry activity.</p> <p>The operating hours are consistent with the existing quarry activity. Suggest a condition that covers all movement at the vehicle crossing and matches the LUC 0035/11.05 conditions.</p>	<p>Condition that covers all movements at the vehicle crossing to match LUC 0035/11.05 PC 6c. (12vph on weekdays 5am-6am) and PC 14a (maximum of 60vph).</p> <p>Condition requiring monitoring and reporting the number of backloads.</p> <p>Condition requiring seal repairs and line marking improvements at the vehicle crossing</p> <p>Condition of consent to prevent dust and debris being tracked on to the road network.</p>
Jennifer Lee Molloy 319B Rotowaro Rd, Huntly 034 Pages 217-221	Oppose	<ul style="list-style-type: none"> - Damage to road and bridge from trucks from current activity - Debris on road from trucks 	- Limit trucks coming to site	Related to the existing quarry activity.	No.

Attachment 1: Suggested Conditions

- i. Truck movements to and from the site entrance shall be limited to a maximum total of 12 per hour during the morning period between the time of:
- Monday to Friday (inclusive) 5am to 6am

Note: operating hours and truck movements do not apply when an emergency is declared by the local or regional authority and metal is required as part of a civil defence response.

Advice note: this is a maximum at the site vehicle crossing applying to all site activities as a total and includes both inbound and outbound movements.

- ii. The maximum total number of truck movements at the site vehicle crossing shall not exceed 60 vehicles/hour.

Advice note: this is a maximum at the site vehicle crossing applying to all site activities as a total and includes both inbound and outbound movements.

- iii. The consent holder shall take all practicable steps to ensure debris is not tracked or spilled onto Council roads. This should include maintaining the wheel wash and the sealed pavement areas at the vehicle crossing between the Riverview Road seal edge, the wheel wash and the weighbridge. In the event that debris is tracked or spilled onto Riverview Road or any other road the consent holder shall take all necessary actions to clean any road surface and associated drainage facilities to the satisfaction of Council's Monitoring Officer. The Consent Holder shall maintain a log of road clean-ups undertaken and provide a copy of the log to Council's Monitoring Officer on a 6 monthly basis or on request. The cost of the clean-up of any roadway and associated drainage facilities, together with all temporary traffic control, shall be the responsibility of the consent holder.

Advice note: A temporary traffic management plan approved by the relevant Road Controlling Authority (RCA) is required for work on the public roads. The consent holder could seek approval of a generic temporary traffic management plan for operating the road sweeper that is revised on an annual basis, as agreed with Council as Road Controlling Authority.

- iv. At least two weeks before the commencement of this consent, the Consent Holder shall prepare and submit a Site Circulation and Loading Management Plan to Waikato District Council's Senior Land Development Engineer for approval.

The objective of the Site Circulation and Loading Management Plan is to demonstrate that the quarry/cleanfill operation will be managed to avoid any impacts on Riverview Road such as queuing or parking within the widened shoulders. The Site Circulation and Loading Management Plan shall include, but not be limited to the following:

- Demonstrate swept paths of opposing truck manoeuvres through the gate and within the site. This should include vehicle tracking for trucks not traveling over the weighbridge
- Demonstrate how inbound trucks will be prioritised at the weighbridge
- Identify holding /waiting areas within the site for trucks waiting for the weighbridge

- Identify stopping areas within the site for trucks to cover/uncover trailer tarpaulins/load covers
 - Documenting how truck driver behaviour will be managed to ensure that queuing/waiting does not occur within the Riverview Road shoulders and to direct drivers to appropriate areas within the site
 - A requirement that removal and replacement of trailer tarpaulins/load covers to be completed within the site.
 - Identify triggers/ timing for the installation and implementation of the second weighbridge
- v. The consent holder shall maintain a heavy vehicle counting system and a daily log book of all inbound truck movements depositing fill and associated outbound truck movements that occur.

The log shall contain the following:

- Registration number of vehicle
- Time of arrival
- Approximate size of the fill load deposited
- Source and type of material to be deposited
- Comments on whether the material is accepted or not
- Comment on whether the truck is backloaded with quarry material
- Time of departure
- Approximate size of the backloaded quarry material

The daily logs shall be retained on site at all times and made available for Council inspection during working hours. A copy of the information shall be forwarded to the Waikato District Council's Monitoring Team Leader on a six (6) monthly basis. The submitted information shall include totals for the number of inbound clean fill truck movements and total backloads for the six monthly period.

Detailed Design

- vi. At least twenty (20) working days prior to the Commencement of Consent detailed design of the Riverview Road shoulder repairs and line marking shall be submitted to the Council (Planning Guidance Unit Manager (or nominee)) for authorisation. The detailed design shall include the following:
- a. Repair of damaged pavement and surfacing in the Riverview Road shoulders, opposite and adjacent to the site. The purpose of the reinstatement is to prevent ponding in the shoulders and along the seal joint between the traffic lanes and the sealed shoulders and to reduce the need for ongoing maintenance.
 - b. Details of the pavement and surfacing and extent including tie ins to existing.
 - c. Details of the line marking for 200m (north and south) of the vehicle crossing, including:
 - i. New diagonal shoulder markings in the 6m wide left turn in approach shoulder in accordance with MOTSAM Part 2 Markings 2.04.02

- ii. New diagonal shoulder markings in the left turn out shoulder, adjacent to the edgeline at the vehicle crossing and where it merges north of the power pole, in accordance with MOTSAM Part 2 Markings 2.04.02
 - iii. New 2.5m wide diagonal shoulder markings in the sealed shoulder opposite, in accordance with MOTSAM Part 2 Markings 2.04.02
 - iv. No stopping lines in accordance with MOTSAM Part 2 Marking, 2.11.01
 - v. 200mm wide edgelines and continuity lines
 - vi. Remarketing of the right turn bay and centrelines
- vii. The Consent Holder shall provide a layout plan and swept paths to confirm that the vehicle crossing and internal access roads is sufficient to provide two way operation over a minimum of 60m from the edgeline of the nearest lane on Riverview Road.

WAIKATO DISTRICT COUNCIL

S42A Report

Appendix F

Noise and Vibration Review - Marshall Day Acoustics

17 October 2022

Waikato District Council
c/o Kinetic Environmental Consulting
PO Box 9413
Hamilton 3240

Attention: Julia Masters

Dear Julia

GLEESON QUARRY MANAGED FILL – ACOUSTIC PEER REVIEW

The Waikato District Council has engaged Marshall Day Acoustics (MDA) in 2019 to undertake a peer review of the acoustic aspects related to Gleeson's Quarry proposed managed fill activities in areas 2 to 4.

After several iterations, we have now prepared a final review and comment on both the assessment and submissions received.

The noise assessment was undertaken by Hegley Acoustic Consultants (HAC). We reviewed the following documentation in relation to acoustic issues:

- Application for Resource Consents associated with the Overburden Disposal Area, by Paua Planning, dated 17 October 2019 (now this application has been withdrawn).
- Assessment of Noise Effects report No. 19069/2, by HAC, dated 10 September 2019 (withdrawn).
- Letter in response to Section 92 request, by HAC, dated 23 December 2019 (withdrawn).
- Emails and documentation between the project planner and WDC planner containing further responses to a Section 92 request relating to fill times in areas 2 to 4.
- Assessment of Noise Effects report No. 19069/2, by HAC, dated 14 June 2022 (this is an update of the report provided that was dated 10 September 2019)

Fill Area zoning

The three fill areas under consideration are located in the following zones:

- Fill area 2 – northern 2/3 Rural zone, southern 1/3 Aggregate Extraction Policy Area
- Fill area 3 – Rural zone
- Fill area 4 – Rural zone

We note that the Noise Effects Report also discusses Fill area 5, however, we understand that this is not proposed to be used.

Fill areas 3 and 4 in the Rural zone are closer to dwellings in Riverview Road and Hillside Heights Road than the quarry site and Aggregate Extraction Policy Area.

Proposed operations and timing

It is proposed to undertake managed fill in the three fill areas north of the existing quarry. Fill would be imported from sources unrelated to the quarry, and also from within the quarry.

The updated proposal is to undertake filling from 6am to 7pm Monday to Friday and 6am to 2pm Saturdays. No managed fill works will occur on Sundays or Public Holidays.

Truck access for fill activities is proposed as follows:

- October to April
 - o Monday to Friday 5am to 8pm
 - o Saturday 6am to 3pm
- May to September
 - o Monday to Friday 5am to 6pm
 - o Saturday 6am to 3pm

The original cleanfill application allowed for early fill works (apart from truck movements) from 5am, which we queried. Following discussion, the times to place managed fill were reduced to 7am starts.

A previous iteration of the proposal (now withdrawn) set the fill times to coincide with the daytime operational times of the Rural zone of the Waikato District Plan, namely:

- Monday to Friday 7am to 7pm
- Saturday 7am to 2pm

This has now been removed again with early start and later finish times, extending from 5am to 8pm for the summer months.

We understand that the quarry has an existing consent allowing truck access and egress to and from the quarry from 5am, and a capped number of 12 truck movements between 5am and 6am. We understand that this cleanfill application does not change the number of truck movements already consented.

We recommend a 7am start time for fill operations only (with trucks permitted from 5am given that this would continue at an already consented rate).

Particularly operations in Fill Sites 3 and 4, which are in the Rural Zone and closer to dwellings than the quarry, should not commence fill operations until 7am. We discuss our reasoning below.

Noise performance standards

Both the operative and proposed District Plans contain noise limits for activities in Rural zones. The numerical limits and time frames are the same in the District Plans, but the proposed District Plan contains L_{Aeq} measurement descriptor rather than the outdated L_{A10} and references the most up to date standards NZS6801:2008¹ and NZS6802:2008.²

The quarry for its operations in the Aggregate Extraction Policy Area has an existing consent setting out noise performance standards of 50 dB L_{A10} at most times.

HAC sets out both the Operative and Proposed District Plan noise limits for the Rural zone.

The decisions on the Proposed Waikato District Plan were released on 17 January 2021 and therefore the rules within have legal effect. We consider the PWDP contains the most appropriate noise performance standard given that there were no submissions pertaining to noise limits in the Notified Version, and it is highly likely they will be adopted when the plan becomes fully operative.

The PWDP uses the latest and therefore most relevant standard for the assessment of noise - NZS 6802:2008. Subsequently, the PWDP adopts the notional boundary concept.

Notional boundary assessment locations are the appropriate assessment location for activities in rural areas because they encompass the area that is 'desired to be protected'. In rural environments it is generally land in the vicinity of dwellings that require the greatest level of protection rather than pasture or land not actually used for human habitation. This is outlined in Section 8.4 of NZS 6802:2008 along with the statement that:

¹ New Zealand Standard NZS6801:2008 Acoustics – Measurement of Environmental Noise

² New Zealand Standard NZS6802:2008 Acoustics – Assessment of Environmental Sound

“The notional boundary concept recognises that sound immissions are the basis for protection from noise under the Resource Management Act. Unless special planning reasons exist to justify using the legal boundary rather than the notional boundary of dwellings where lot sizes are large and settlement density is low, the appropriate location for assessment of noise in rural character areas with large lot sizes, should be ‘at any point within the notional boundary of a dwelling’ and this may include some rural-residential areas.”

The relevant noise limits for the Rural zone are in Rule NOISE- R8 in Part 2: District-wide matters / General district-wide matters / NOISE – Noise of the PWDP and reproduced below.

NOISE-R8	Noise – general	
GRUZ – General rural zone	Zone (1) Activity status: PER where: (a) Noise measured at the notional boundary on any other site in the GRUZ – General Rural Zone must not exceed: i. 50dB L _{Aeq} , 7am to 7pm every day; ii. 45dB L _{Aeq} , 7pm to 10pm every day; iii. 40dB L _{Aeq} and 65dB L _{Amax} , 10pm to 7am the following day. (b) Noise measured within any site in any zone, other than the GRUZ – General rural zone, must meet the permitted noise levels for that zone. (c) Noise levels must be measured in accordance with the requirements of New Zealand Standard NZS 6801:2008 “Acoustics – Measurement of Environmental Sound”. (d) Noise levels must be assessed in accordance with the requirements of New Zealand Standard NZS 6802:2008 “Acoustic – Environmental noise”	Activity status where compliance not achieved: DIS

*Therefore, we agree with applying the **Proposed District Plan** noise limits as set out above.*

Existing environment

Ambient noise level surveys were provided by HAC for 70 Hillside Heights Road and 206 Riverview Road in August 2019. Ambient sound levels are low overnight and up until 7am.

Daytime sound levels were generally low at 70 Hillside Heights Road, with background sound levels generally below 40 dB L_{A95} during daytime.

At 206 Riverview Road, sound levels were moderate and ranging from 40 to 50 dB L_{A95}. The survey was undertaken before the Waikato Expressway Huntly Section opened (in March 2020), which suggests that the noise levels at Riverview Road will be lower now that most of the SH1 traffic has diverted onto the new Waikato Expressway, leaving only a fraction of the previous traffic on Great South Road (previously SH1).

Overall, the sound level surveys showed the influence of SH1 on Riverview Road, which would not now be present to the same degree, while Hillside Heights Road is more remote and therefore quieter. The recommended noise limits are appropriate for the receiving environment, when duration and character of the sources are taken into consideration (e.g. no night-time filling in the Rural area).

*Any activities in Fill areas 3 and 4 prior to 7am are likely to be **clearly noticeable** at the dwellings in Hillside Heights Road given the remoteness of the area and lack of man made noise sources. Activities in these fill areas will likely now be also noticeable at Riverview Road given the reduction in traffic on the previous SH1 (now Great South Road).*

Truck numbers

The fill activities are proposed to generate an additional 24 truck movements per day (12 in and 12 out). The number of truck movements would therefore increase from the current 466 movements per day to 490 movements per day.

The change in overall noise level will be negligible, in the order of 0.2 dB.

It is unclear if the cleanfill application proposes to double the number of truck movements currently permitted for the quarry operations between 5am and 6am. The existing quarry consent permits 12 truck movements during that hour, and the cleanfill proposal also requests 12 truck movements during the 5am to 6am period.

We recommend that the number of truck movements for the total operation remains unchanged at 12 movements in the 5am to 6am hour, to avoid changes to the effects during the most sensitive hour.

*We consider the proposed additional daily truck movements will have **no noticeable effect on the overall noise level** provided the truck numbers remain as currently consented for the period prior to 7am.*

*We recommend that the **total number of truck movements into the site** (from both quarry and cleanfill operations) **between 5am and 6am is limited to 12 movements**.*

Noise level predictions

HAC predicted noise levels for fill operations in the four fill areas under consideration. Allowance was made for all equipment operating concurrently and in “worst case” locations for each stage, which means that at lower fill heights the noise levels would be lower.

All operations are predicted to comply with the proposed noise limits at all dwellings.

*We concur with the HAC predictions and agree that **compliance can be achieved** with the proposed noise limits.*

Assessment of effects

While compliance can be achieved at all dwelling, we consider that the proposed early fill operations from 6am to 7am, particularly in Fill Areas 3 and 4 will likely be noticeable at closest dwellings, both in magnitude and character.

The background noise levels provided in the HAC report (figures 6 and 7) are around 30 dB L_{A90} at Hillside Heights Road, which will make intermittent and engine noise sources likely clearly audible.

*We recommend that **fill operations in Fill Areas 3 and 4 commence at 7am** only to mitigate adverse effects on nearest neighbours during the morning hour. Fill area 2 would be able to operate from 6 am onwards.*

Submissions

We have read the submissions made on the proposal as they relate to noise and/or vibration. Several submissions discuss noise effects from the proposal in general. However, some raise specific issues that I respond to below.

Truck noise and vibration

Several submissions on Riverview Road comment on the noise and vibration generated by trucks passing on the road. The faster trucks travel, the higher the noise and (particularly if the road is uneven or in a state of disrepair) vibration levels.

Noise and vibration from trucks on the public road are outside the realms of this consent as vehicles using the public road is a permitted and expected activity. However, the cleanfill operator can assist with reducing these effects through a thorough management plan that requires truck drives to adhere to a set of rules (e.g. which speed to drive, not to use engine braking etc). Given that 80% of the trucks are Gleeson owned, the operator will have particularly good control over the trucks accessing the cleanfill. Any infringements can be dealt with through the requirements of the management plan. While we have labelled it a “traffic management plan”, we note that the content we set out in the recommended conditions relate to noise and vibration generation.

*We therefore recommend that a **management plan** be prepared and certified by Council that sets out the management measures **for truck operations** to reduce noise and vibration effects.*

Another submission references American vibration rules in relation to truck vibration. We note that these are not usually applied in New Zealand. If traffic vibration is assessed, we apply the Norwegian Standard NS 8167 2017 *Vibration and shock – Measurement of vibration in buildings from land-based transport, vibration classification and guidance to evaluation of effects on human beings*. However, as noted above, noise and vibration from trucks on the public road does not fall under this consent, apart from the application of a management plan as recommended above.

Noise level predictions

One submission questions the accuracy of the noise modelling, including why noise levels across the Waikato River have not been assessed.

We have undertaken spot check calculations and find that the predictions are generally within the correct magnitude. Noise levels across the Waikato River may be provided by the applicant at the time of the hearing. Based on our calculations, compliance with the relevant noise limits can be achieved across the Waikato River.

Noise effects on Hillside Hotel

One submission queries the noise effects on Hillside Hotel on the other of the Waikato River. Noise from the cleanfill may be audible at the hotel at times, however, the quarry, roads and other activities in the area will also be audible and contribute to the overall noise level. We do not consider the cleanfill to be a significant contributor to the overall noise level at the hotel and expect that ready compliance with the limits can be achieved.

Recommended conditions

We recommend that the following conditions be applied to the operations in Fill areas 2 to 5, should consent be granted:

1. Any activity within Fill Areas 2, 3 and 4 shall be designed and conducted so that noise from the activity measured at the notional boundary on other site does not exceed:
 - a. 50dB L_{Aeq} , 7am to 7pm every day;
 - b. 45dB L_{Aeq} , 7pm to 10pm every day;
 - c. 40dB L_{Aeq} and 65dB L_{Amax} , 10pm to 7am the following day

Noise levels shall be measured and assessed in accordance with NZS6802:1999 “Acoustics – Measurement of Environmental Sound” and NZS6802:1991 “Assessment of Environmental Sound”.

2. Managed fill activities (disposal, compaction and moving of managed fill on site) shall occur during the following times only within:
 - a. Fill Site 2:
 - i. 6am to 7pm Monday to Friday
 - ii. 6am to 2pm Saturday
 - b. Fill Sites 3 and 4:
 - i. 7am to 7pm Monday to Friday
 - ii. 7am to 2pm Saturday
3. Truck movements to and from the site entrance for all activities on site shall be limited to a maximum of 12 per day during the morning period between the times of Monday to Friday 5am to 6am.

4. The Consent Holder shall ensure all activities authorised by this consent are carried out in accordance with an approved Traffic Management Plan (TMP) prepared by a suitably qualified and experienced Transportation consultant. The TMP shall identify safe operational parameters and the means by which traffic safety and efficiency effects will be managed and mitigated to avoid off-site adverse effects as far as practicable.

The TMP shall include, but not be limited to the following details:

- a. Description of operational procedures and monitoring that will be implemented to record and monitor truck movements and safety and performance of the public road
- b. Include a code of conduct for drivers of vehicles and visitors to the site, including ensuring all heavy vehicle operators are aware of the operating limits of the site
- c. Include details of measures to prevent drivers from exceeding operating limits
- d. Include details of measures to be used to deter drivers from using engine brakes when approaching or leaving the site

We trust this information is satisfactory. If you have any further questions, please do not hesitate to contact us.

Yours faithfully

MARSHALL DAY ACOUSTICS LTD

Siiri Wilkening

Acoustician

Julia Masters

From: Siiri Wilkening <Siiri.Wilkening@marshallday.co.nz>
Sent: Tuesday, 1 November 2022 11:05 am
To: Julia Masters
Subject: Re: LUC0488/22 - Clarification of Peer Review Comments

Hi Julia

You have captured that correctly. Thank you.

Kind regards
Siiri Wilkening

From: Julia Masters <julia@kineticenvironmental.co.nz>
Sent: Tuesday, November 1, 2022 11:03:40 AM
To: Siiri Wilkening <Siiri.Wilkening@marshallday.co.nz>
Subject: LUC0488/22 - Clarification of Peer Review Comments

Hi Siiri

I hope your conference is going well.

Following our phone discussion yesterday, I want to confirm in writing the points we covered.

Can you review the below please and let me know if I have summarised this accurately. Please feel free to expand on this as appropriate.

Within your peer review you note that while compliance with the noise standards can be achieved at all dwellings, the proposed early fill operations from 6am to 7am, particularly for Fill Areas 3 and 4 will likely be noticeable at closest dwellings, both in magnitude and character. In particular, background noise levels for dwellings in Hillside Heights Road are around 30dBA L_{A90} which will make intermittent and engine noise clearly audible. On this basis, you question whether there is a need for works to start prior to 7am at Fill Areas 3 and 4, noting that Fill Area 3 and 4 are both outside of the Aggregate Extraction Area and the expectation for activities of this nature to take place is reduced. You state that amended hours (i.e. a start time of 7am instead of 6am) for Fill Areas 3 and 4 would be desirable. However, the effect of noise from activities at Fill Area 3 and 4 (as well as Fill Area 2) with a start time of 6am will be acceptable on the basis that compliance with the noise limits can be achieved.

Happy to discuss.

Kind regards,

Julia Masters
Senior Planner

027 4136 085
julia@kineticenvironmental.co.nz



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WAIKATO DISTRICT COUNCIL

S42A Report

Appendix G

Visual and Landscape Review – Mansergh Graham Landscape Architects

Project:	Gleeson Quarry Cleanfill Application	Memo: 2/R2	Page: 1 of 10
Date:	21/09/2022		
Topic:	Landscape and Visual Assessment Review		
Attention:	Julia Masters		
From:	Dave Mansergh		

INTRODUCTION

Following the withdrawal of their 2019/2020 application, Gleeson Quarries Ltd has reapplied for land use consent to establish three new overburden disposal/clean fill sites at their quarry on Riverview Road. The applicant has requested that the application be publicly notified.

Waikato District Council has engaged Mansergh Graham Landscape Architects Ltd to review the Assessment Landscape and Visual Effects (LVE) report prepared by LA4 Ltd and provide feedback to Council.

This document has been prepared as part of an analysis of the content and adequacy of information relating to visual, landscape, and amenity effects identified within the resource consent application and assessment of environmental effects (AEE). This document has been prepared within the context of the Resource Management Act 1991, The Waikato Regional Policy Statement (WRPS), the Operative Waikato District Plan (OWDP) and the Proposed Waikato District Plan - Decisions Version (PWDP).

SUMMARY OF THE APPLICATION

Gleeson Managed Fill Ltd and Gleeson Quarries Huntly Ltd have applied for resource consent to establish and operate three separate Managed Fill operations within Pt Lots 9 and 10 DP 1278 and Lot 1 DP 25272 comprised in Certificate of Title SA922/109. The applicant is seeking consent to import and deposit both clean fill (including overburden material from the adjacent Gleeson Quarry) and managed fill (clean fill and overburden).

The resource consent applications seek to undertake the following activities:

- a. To undertake a staged fill operation, commencing in Fill Area 2 and progressing to Fill Areas 3 and 4, as identified on the map below (Figure 1), including:
 - i. The removal of all vegetation and topsoil to expose a competent subgrade.
 - ii. The reclamation of existing ephemeral and intermitted watercourses and wetland areas and installation of drainage and recommended erosion and sediment control measures, including stormwater/sediment control ponds.
 - iii. The importation and placement of managed fill into Fill Areas 2, 3 and 4 per geotechnical engineering recommendations.
 - iv. Stabilisation of the gullies once fill is placed per geotechnical recommendations.
 - v. The upgrade of existing internal access roads.
 - vi. Discharge of clean water from sedimentation ponds into ephemeral streams.
 - vii. The ongoing restoration, rehabilitation, and enhancement of a 3.3ha biodiverse ecosystem, including 3600m² of natural wetland and 730m of stream length and riparian habitat which is 3.9ha in total and to be covenanted.
 - viii. The establishment of forestry on the land that is affected by the managed fill activity on completion of each fill area.

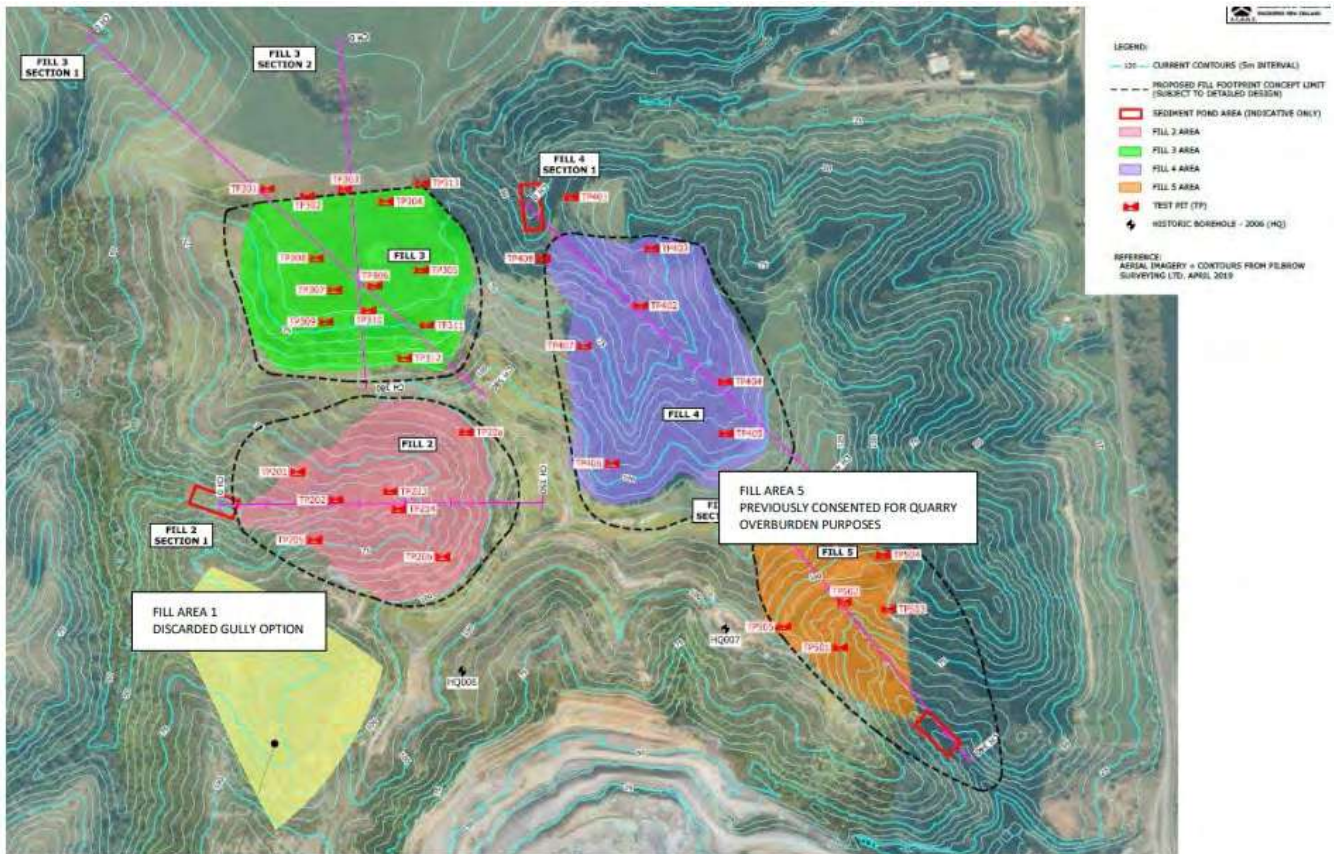


Figure 1 Site Layout with Current Contours¹

BRIEF

The brief from Council includes:

- a. Review the landscape and visual assessment report (as associated s92 responses) from the original application (LUC0233/20 - now withdrawn) and advise Council's Consultant Planner if:
 - i. The original review (Dated 10 March 2020) still applies, and if not
 - ii. What additional information may be required.
- b. Assist Council in identifying potentially affected properties for notification purposes.
- c. Provide an updated peer review report to Council.

PURPOSE AND APPROACH

Purpose

The purpose of this review is to determine the following:

- a. If the level of detail provided in the application documentation corresponds with the scale and significance of the effects on the environment under Schedule 4 (2)(3)(c) of the RMA; and
- b. If enough information is contained within relevant parts of the application documentation to allow a potentially affected person and/or the decision-maker to gain a clear and concise understanding of the nature and extent of effects that the development is likely to have on the landscape and visual amenity.

¹ Page 16. Assessment of Effects - Proposed Overburden & Managed Fill Activity Riverview Road Huntly. Paua Planning Ltd. 22 April 2022. Version 01.

Review Approach

This review was carried out within the context of the requirements of the RMA, the findings, and recommendations of *Te Tangi a te Manu Aotearoa New Zealand Landscape Assessment Guidelines [Final Draft 2021]* and the Quality Planning website. The following factors have been considered:

- a. If the assessment methodology used is consistent with the current accepted (“best practice”) approach to landscape, natural character and visual assessment and has been applied consistently.
- b. If the values and attributes of the existing landscape have been described in enough detail to convey a clear understanding of the existing landscape, and amenity baseline against which the assessment is undertaken. This should include any differences that exist between the existing physical environment, the consented environment, and the permitted baseline (where applicable).
- c. If the proposal has been described in enough detail to convey how it will alter the existing landscape, natural character, and visual amenity.
- d. If the effects of the proposal on the landscape (including its visual amenity) have been described and rated consistently and any relevant issues are identified.
- e. The accuracy and usefulness of any attached plans, maps, graphics, and visualisations.
- f. If the relevant statutory matters and provisions have been identified and addressed in sufficient detail.
- g. The extent to which any proposed mitigation approach avoids, remedies and/or mitigates any unacceptable adverse effects on the landscape, natural character, and visual amenity values within an acceptable time frame.
- h. If the conclusions and recommendations are supported by the analysis within the assessment.

This review is limited to determining whether the currently accepted approach to landscape, visual and natural character assessment has been followed by determining if it is likely that another experienced landscape architect would reach the same or similar conclusions, by applying the same methodologies given the information presented within the report. The *Te Tangi a te Manu - Aotearoa New Zealand Landscape Assessment Guidelines* states:

A peer review is a focused appraisal of the principal assessment, not a parallel assessment.

The structure and style of the LVE are not assessed.

REVIEW OF THE APPLICANT’S LANDSCAPE & VISUAL ASSESSMENT

Documents Reviewed

The following documents have been reviewed:

- a. *Assessment of Landscape and Visual Effects – Gleeson Quarries Limited River Road – Huntly. LA4 Ltd. Version: Draft. Date: 19/10/2019.*
- b. *WDC S92 Request Response. Paua Planning. 21 February 2020.*
- c. *Assessment of Effects - Proposed Overburden & Managed Fill Activity Riverview Road Huntly. Paua Planning Ltd. 22 April 2022. Version 01. (Relevant sections only reviewed)*
- d. *S 92 Request – Request for Further Information Date Received Response. Paua Planning. 9 March 2020.*
- e. *s92 Further Information Request: Landscape Review. LA4 Landscape Architects Ltd. 3 June 2022.*

Inspection of Viewpoints

An inspection of the surrounding visual catchment on 26/5/2022 found that the key attributes and characteristics of the landscape containing the application site have remained substantially unchanged, meaning that the original assessment is still valid (subject to the comments contained in this memo and the original review dated 10 March 2020 – attached).

REVIEW

Methodological Approach

The methodology used in the LVE draws from several approaches, including the Quality Planning Landscape Guidance Note OF1. A combination of the review of background information to identify key landscape features and attributes; relevant planning documents; and site investigations/observations have been used to identify the existing landscape context and assess the effects of the expected change on landscape and visual amenity. A seven-point effects rating scale has been used to rate effects.

It is considered that the assessment approach adopted in the LVE/s92 response is generally consistent with the “accepted professional practice” used in New Zealand at the time the report was written (*NZILA Best Practice Note: Landscape Assessment and Sustainable Management 10.1*) and that while an updated best practice guidelines have since been adopted (*Te Tangi a te Manu Aotearoa New Zealand Landscape Assessment Guidelines [Final Draft 2021] (TTATMA)*), it is unlikely that their application would affect the findings of the assessment.

The 2022 s92 response (3 June 2022) provides a revised effect rating scale, consistent with current best practices.

In my opinion, while the approach taken follows a recognised methodology and the findings can be independently reviewed, the extent of the effects cannot be easily understood or independently verified. This is discussed in more detail later in this review.

It is also noted that, due to the multidisciplinary nature of the development approach adopted, some information that would normally be found in the LVE reporting, is found within other parts of the application documentation (e.g. the AEE document). Where applicable, this has been considered.

Identification of Existing Landscape and Amenity Values

Within the context of the proposed application and the range of effects that could potentially arise, the LVE adequately identifies the main defining characteristics of the site and surrounding landscape context.

The existing quarry influences the characteristics and visual amenity of the landscape surrounding the site and, where visible, these factors should be taken into consideration in the assessment of effects on rural character and amenity.

Identification of the Main Elements of the Proposal

The main elements of the proposal, including a description of the receiving landform, fill area, fill volume and the location of the associated silt pond; have been identified in the LVE and on the associated plans.

The LVE states:

... The modified landform, once filling was complete, would be relatively consistent with the surrounding topography and landscape patterns with the final contour varied to approximate natural variations in slope and drainage patterns...

A review of the plans contained within the LVE (Figure 1) shows the fill areas as being benched.

Effects on Landscape and Visual Amenity from Surrounding Representative Locations

The report identifies that the wider environment has been subjected to various degrees of modification and is not high in landscape character value due to dwellings, exotic plant species and the removal of natural land cover. The LVE identifies the landscape as being a highly modified and working rural environment and that this will assist in reducing the sensitivity to change associated with the proposal.

The report also identifies the surrounding area as displaying:

...reasonable level of visual amenity that is influenced by the Waikato River, landform and surrounding vegetation patterns, the landscape values associated with the area are only moderate due to the rural land use activities, quarrying activities and lack of significant natural landscape features in the area.

The existing landscape value is not rated.

In terms of landscape effect, the LVE identifies that the proposal fill areas will permanently alter the landform of the gully areas and lower flat; and will remove the mixed exotic native and weedy vegetation on the gully slopes. Earthworks would be contoured to marry into the existing landform at the extent of the fill areas and, once complete, used for pastoral farming. The proposed changes to the landform and vegetation patterns are confined and could be absorbed within the rural landscape without adversely affecting the landscape values. Adverse effects on character quality and aesthetic values are small in magnitude.

A limited number of view locations have been identified for analysis based on the visibility of the site from surrounding roads and public areas. The identified view locations do not encompass the range of viewing audiences identified in the LVE (Para 4.22) and listed below:

- i. *motorists and pedestrians on Riverview Road immediately in front of the site;*
- ii. *motorists travelling along SH1 opposite the site;*
- iii. *recreational users of the Waikato River;*
- iv. *residents on the eastern banks of the river opposite the site;*
- v. *residents on the foothills to the east and visitors to the Hillside Resort;*
- vi. *residents within the properties to the north and west of the fill sites accessed off Rotowaro Road and Hillside Heights Road; and*
- vii. *travellers in trains on the NIMT railway.*

In terms of visual effect, the LVE suggests that views towards Fill Areas 3 and 4 would be gained from Viewpoint 5, properties to the north and northwest of the site (Rotowaro Road and Hillside Heights Road).

Information supplied in the second s92 response (9 March 2020) identifies the location of dwellings potentially affected by areas 3 and 4 to the north of the site. These houses are identified as being located on contours between 30 – 40m below fill area 3, with an intervening ridgeline screening all but the upper portion of the fill area.

The LVE and original s92 responses indicate that the filling operations would not be visible from VL1-VL4 and that only parts of fills 3 and 4 will be visible from VL5.

The s92 response of 9 March 2020 identifies the filling sequence that will be followed, including the formation of containment bunds that will be grassed and will screen the fill operation behind them. This allows the extent and duration of effects on adjacent properties (especially from VL5 and other nearby locations) to be understood. Cross-sections, showing the location of each structural bund and allowing the fill sequence to be interpolated, are provided.

The effects ratings appear to place significant reliance on the fill sites being screened by the existing pine and eucalypt plantations within the site, meaning that their retention for the duration of the filling operation is beneficial.

The effects on the landscape are rated as *low* and it is concluded that the finished landform will:

... fit well into the surrounding landscape and improve the existing degraded amenity values of the gully areas and lower flat.

Effects on visual amenity are rated between *negligible* and *low* (equating to *very low* and *low-moderate* using the amended rating system). The s92 response of 3 June 2022 identifies the relationship between the rating terminology used in the LVE and the minor threshold of the RMA as follows:

<i>Negligible</i>	<i>Very low</i>	<i>Low</i>	<i>Moderate</i>	<i>High</i>	<i>Very high</i>	<i>Extreme</i>
<i>Less than minor</i>	<i>Minor</i>		<i>More than minor</i>		<i>Significant</i>	

Effects ratings provided in the LVE and the rating comparison tables provided in the June 2022 s92 response are summarised in the following table:

View Point	Location	Effect Rating in LVE	Equivalent Rating using <i>TTATMA</i> ² Terminology	RMA Threshold	Notification
1	SH1	Negligible	Very Low	Less Than Minor	Not required
2	SH1	Very Negligible	Very Low	Less Than Minor	Not required
3	SH1 Layby	Very Negligible	Very Low	Less Than Minor	Not required
4	Hillside Resort	Very Low	Low	Minor	Required
5	Hillside Heights Road	Low	Low-Moderate	Minor	Required

The LVE identifies that the viewing audience that is most affected is that located in and around Hillside Heights Road, represented by view location 5. It is also noted from the site inspection that the application site is unlikely to be seen from viewpoints 1, 2 and 3 and therefore the analysis within the LVE is largely redundant. The LVE states that:

...The proposal will initially have a noticeable impact on the existing rural amenity from here through the removal of the existing vegetation within the gully and infilling.

And

² *Te Tangi a te Manu Aotearoa New Zealand Landscape Assessment Guidelines [Final Draft 2021]*

...The visual contrast between the exposed fill and surrounding pastoral and vegetated landscape will visually highlight the presence of the managed fill...

The analysis provided within the LVE and s92 responses indicates that:

- a) the proposed fill areas will be seen within the context of other quarrying activities (on the eastern side of the Waikato River).
- b) that the available views from the dwellings to the north of the site are relatively distant (1-1.5km) and oblique.
- c) that a combination of the intervening landform and containment bunding will provide partial screening; and
- d) that the duration of the “visual impact” will be relatively short (2-5 years).

In my opinion, enough information is contained in the LVE and s92 responses to support the conclusions reached.

Supporting Plans, Maps and Graphic Material

The LVE contains several figures, maps, and photographs in support of the written assessment. Figures 1 and 2 show the locations of the proposed fill site within the context of the aerial photography and contour plan. The engineered fill contours are shown at a low resolution; and while this allows this aspect of the changes to the landform to be interpolated, no final contour or landform integration contours are provided. This would be a useful addition to the application and would help communicate how the clean fill areas were to be integrated into the surrounding landform.

The context photographs (figures 3 - 6) show the location of each of the proposed fill sites and are useful in that, together with the view location photographs, they also illustrate the characteristics and visual amenity associated with the wider surrounding landscape. The photographs also indicate that the fill sites are not high in natural character (as stated in the LVE but not assessed in detail).

While the location of the fill areas and view location photo points are identified on the map contained in the appendices, the inclusion of a ZTV analysis would have been useful to help understand the potential visual catchment in more detail and determine the relative importance of the existing trees within the site for landscape mitigation and screening.

The addition of labels to the photograph taken from view location 5 assists by communicating the location of the fill areas 3 and 4. Labels indicating the locations of the unseen fill sites would provide a better understanding of the location and extent of potential visibility (instead of a photomontage, an annotated outline of the extent of each fill area and/or ZTV mapping).

The provision of an additional map (fig 1 of the March 9 s92 response) usefully identifies the location of the potentially affected viewing audience. The provision of the proposed cross-section, showing the structural containment bunds, helps by providing an understanding of how the fill operation will occur.

It should be noted that the photograph included in the LVE labelled as view location 5 was not taken from the location identified on the view location map or representative of the location described within the report. As a result, the extent to which the intervening ridge reportedly screens the fill sites from view (as described in the March 9, 2020, s92 response) is contradicted by the extent visible in the photograph.

Mitigation Recommendations

The LVE indicates that the clean fill areas will be incrementally reinstated, shaped to integrate with the existing rolling landform and returned to pasture. No detail is provided around how this will occur or over what timeframe.

While it is identified that an existing mixed pine/eucalypt plantation around the eastern and northern sides of the existing pit will be retained to maintain a high level of screening, there are no clear recommendations around the retention of the existing screening and the extent to which the *negligible* to *low* (very low – low-moderate) effects ratings are reliant upon the maintenance of the pine trees.

It is considered that this issue can be addressed by a condition of consent that requires the preparation and implementation of a landscape management strategy.

Statutory Context and Planning Matters

The LVE report assesses the application against the landscape and planning provisions contained in the operative version of the Waikato District Plan (WDP) and Waikato Regional Policy Statement (WRPS) and concludes that the application is consistent with the various landscape and amenity provisions contained in the plan. A review of the application against the relevant provisions of the Proposed Waikato District Plan – Decisions Version (PWDP-D) has been provided in the March 2022 s92 response.

Regarding the WDP, Objectives 13.6.1 and 13.6.5 and their associated policies which relate to the preservation of rural character and cumulative adverse effects have not been addressed, Objective 17C.3.2 and its associated policy from the Franklin section of the ODP have been. While this appears to be an error, both sets of objectives appear to seek a similar outcome and it is there considered that analysis of the correct provisions would not likely have affected the overall conclusions reached.

Regarding the PWDP-D, the s92 response states:

- i) *The proposed activity has a functional need to locate in the zone.*
- ii) *The proposal provides for rural industry and extractive activities.*
- iii) *The rural character and amenity values of the site are not high as a result of the natural and physical resources present and the scale and extent of existing land use activities.*
- iv) *The site and its surrounding rural landscape (other than the Waikato River) are not high in landscape value. It is a distinctly modified environment through past and present land use including quarrying, mining, farming, forestry, and rural residential lifestyle activities. The landscape values and visual amenity of the Waikato River will not be adversely affected by the proposal.*
- v) *The proposal would contribute to the economic and social well-being of the district*
- vi) *The relatively restricted visual catchment, existing landform and vegetation patterns would mitigate any adverse effects on the existing rural character and ensure that the amenity values of the surrounding area would be maintained.*
- vii) *The completed state of the fill areas would be integrated into the surrounding landscape, in keeping with the appearance, form and location of existing rural character and amenity values.*
- viii) *The scale, intensity and duration of effects of the filling activities would be compatible with the amenity and character of the locality.³*

It is considered that the LVE/s92 response adequately addresses the various relevant landscape and amenity provisions of the WDP and PWDP-D.

³ Page 2. March 2022 s92 Response.

NOTIFICATION

Based on the findings and ratings contained within the LVE, it is recommended that the following potentially affected persons/properties are notified.

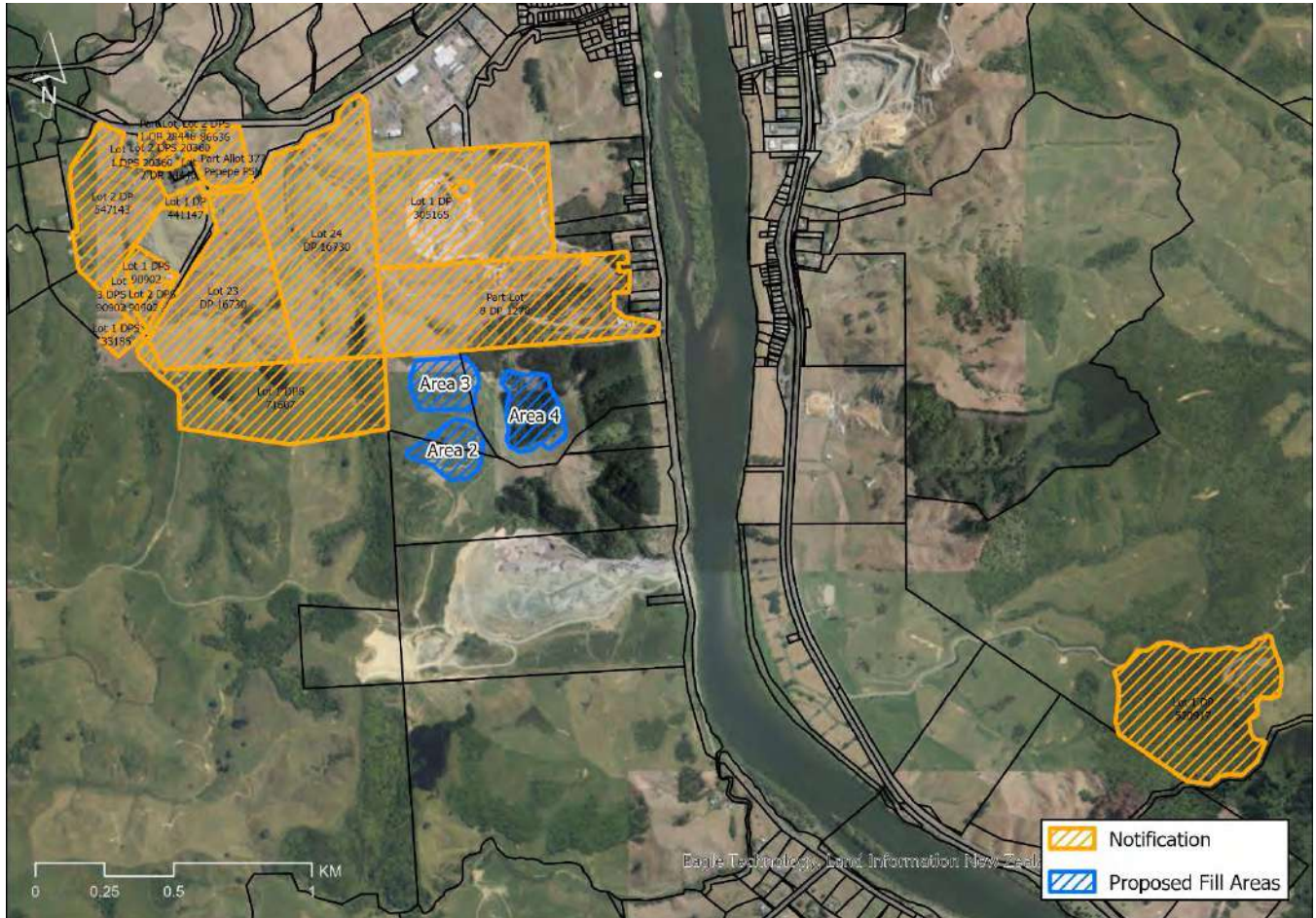


Figure 2: Recommended Notification Map

SUBMISSIONS RECEIVED

Of the 36 submissions received, 5 identify a change to the landscape or effect on an existing view as being of issue. These are:

- Submission 2 (Perkins)
- Submission 5 (Rutherford)
- Submission 11 (Vitasavich)
- Submission 14 (Shepard)
- Submission 20 (Huntly Community Board)
- Submission 25 (Freeway Design Ltd)

However few details are provided beyond identifying that:

- a) The proposal will change the landscape; and
- b) The view will be affected.

FINDINGS

This review of the LVE has found that while the level of detail provided in the application documentation corresponds with the scale and significance of the effects on the environment following Schedule 4 (2)(3)(c) of the RMA, additional information (such as interim effect ratings, a ZTV map, photomontage, or the annotation of the outline of the proposed fill areas onto the site photography), would aid in identifying the potential effects the proposal will have on the landscape and visual amenity.

As previously stated, based on observations undertaken during the site inspection, proposed fill areas 2, 3 & 4 are unlikely to be seen from viewpoints 1, 2 and 3 and therefore the analysis of effects from these locations is largely redundant.

Fill site 2 appears to be geographically contained within the head of a small valley, and less likely to be visible from surrounding public and private locations. Fill sites 3 and 4 are likely to be visible during filling operations from dwellings to the north and west (including Hillside Heights Road and the residential area to the north).

The use of containment bunds (up to 10m in height), backfilled in 5m lift, and the proposed top soiling and grassing strategy means that the effects are likely to *....increase currently degraded visual amenity values by providing distant views over high quality pasture and planted areas rather than degraded erosion prone land.*

It is agreed that, upon completion, the proposed clean fill sites will not result in an unacceptable level of effect on surrounding rural character or visual amenity values represented by the identified view locations (subject to the retention of the existing screening vegetation). It is also agreed that the effects on landscape and visual amenity will be during the filling operation will be *less than minor* from viewpoints 1 -3, and *minor* from viewpoints 4 - 5.

Due to the relatively narrow spread of viewpoints, and the effect ratings contained within the LVE, it is recommended that potentially affected properties (i.e. those who may have direct views of the site) on Hillside Heights Road are notified.

From a landscape and visual effects perspective, I consider that there is no reason why consent could not be granted.

It is recommended that if consent is granted, the mitigation identified in the LVE report and s92 response of March 9, 2020, be formalised through a condition of consent and that a mitigation management strategy is prepared and submitted to the Council that requires:

- i) That the existing pine and eucalyptus plantations that screen the clean fill sites from view be maintained until after all filling is completed.
- ii) That upon completion of each lift or overall completion, the clean fill landform is shaped to visually integrate with the adjacent natural landform.
- iii) That the finished landform and all associated disturbed areas are re-grassed and returned to pasture/planted in Pine.

Yours faithfully



Dave Mansergh

DipP&RM(Dist), BLA(Hons), MLA Registered ANZILA
Director

WAIKATO DISTRICT COUNCIL

S42A Report

Appendix H

Air Discharge Assessment Review - Jonathan Caldwell (Waikato Regional Council)

Memo

File No: 22 02 09

Date: 9 August 2022

To: Emma Cowan, Resource Officer, Resource Use Directorate

From: Jonathan Caldwell, Senior Scientist, Science, Policy & Information Directorate

Subject: **Technical Assessment – Air Discharges - Gleeson’s Managed Fill**

I have been asked to undertake a technical assessment of the air discharges associated with the application document and supporting AEEs and appendices for "APP144475 - RC Appln - Discharge Permit, Land Use & Water Activities - 300 Riverview Rd, Huntly" for a proposed managed fill activity.

In preparing my assessment I have referred to the following information:

- APP144475 - RC Appln - Discharge Permit, Land Use & Water Activities - 300 Riverview Rd, Huntly <https://discover.wairc.govt.nz/otcs/llisapi.dll/Overview/23785826>
- AEE summary for all activities, 4 May 2022 AEE Rev02 <https://discover.wairc.govt.nz/otcs/llisapi.dll/link/23893165>
- Air Quality AEE Nov 2019 (<https://discover.wairc.govt.nz/otcs/llisapi.dll/link/24457831>)
- Managed Fill AEE and Waste Acceptance Criteria 13 July 2022 Rev6.docx (<https://discover.wairc.govt.nz/otcs/llisapi.dll/link/24457239>)
- Site Fill Management Plan 13 July 2022 Rev8.docx (<https://discover.wairc.govt.nz/otcs/llisapi.dll/link/24457573>)
- Asbestos Fill Management Plan PDP Aug 2020.pdf (<https://discover.wairc.govt.nz/otcs/llisapi.dll/link/24492966>)
- Appen 6.11 Asbestos Air Monitoring Plan.pdf (<https://discover.wairc.govt.nz/otcs/llisapi.dll/link/24491764>)
- Dust Management Plan (located on page 434 of the main application document)
- Draft Conditions as proffered with application.docx (<https://discover.wairc.govt.nz/otcs/llisapi.dll/link/24458432>)
- Air Quality s92 response WRC Jan 2020 (<https://discover.wairc.govt.nz/otcs/llisapi.dll/link/24458226>)

In addition to this I undertook a site visit on 5 December 2019.

PDP provided an AEE of air discharges associated with the managed fill activity in November 2019 which was included in Appendix 11 of the Bundled Resource Consent application lodged in May 2022. The original AEE included an assessment of discharges to air associated with managed fill activities in Fill areas 2,3 and 4 as well as clean fill and overburden activities in Fill area 5 which is no longer part of this consent application.

PDP has identified and assessed both dust and combustion related discharges to air associated with the managed fill activities.

Dust discharges

Dust discharges are associated with:

- vehicle movements on access roads and unsealed haul roads within the site;
- Stripping of topsoil for establishment of fill areas;
- Placement of cleanfill, overburden and managed fill with asbestos containing material (ACM);
- Rehabilitation of fill areas with topsoil; and
- Fugitive emissions from exposed surfaces

Dust discharges include both nuisance dust particles larger than 10 microns in diameter and fine particles that are smaller than 10 microns in diameter (typically referred to as PM₁₀ and PM_{2.5}) which can pose a risk to health. I agree with PDP that it will be the nuisance dust particles that are likely to dominate the discharges.

PDP assessed the adverse effects from dust discharges by consideration of the FIDOL factors which considers the sensitivity and location together with the likelihood of the activities to generate dust and the frequency of winds with increased potential to result in offsite dust. Refer to Figure 1 for locations of sensitive receptors with distances ranging from 400 to 930 metres away.



Figure 1. Nearest residences location map (note Fill Area 5 in magenta is not part of this application).

PDP considers that the properties immediately to the east and northeast of the site are most at risk due to the higher frequency of strong winds occurring from the west and south-southwest, whereas properties in other directions from the site will be at a significantly lower risk of experiencing windblown dust. However, through a s92 request I made in December 2019 for assessment against a more local meteorological station located at Frost Rd (9 km north of the quarry), it was agreed by PDP that this Frost Rd met station would be more applicable with a prevailing wind direction along the north-south axis that is formed from the valley terrain in this location (refer to Figure 2). However, more recent met data from the Frost Rd site now indicates to me that the prevailing wind in the last two years has been more from the southwest with a smaller component from the southeast which is more consistent with the original assessment by PDP based on the Ruakura and Whatawhata Windroses.

I therefore agree with PDP's original assessment that it is properties to the east and northeast of the site that would be more at risk. And as noted by PDP, these residences are over 400 metres distant from the proposed dust-generating activities at the quarry, and so are unlikely to be significantly affected by dust, even when downwind of the activities. Specifically, the dust management plan prepared by PDP in February 2020 states that it is expected that dust from activities at the site will settle within around 100 metres from the point of discharge.

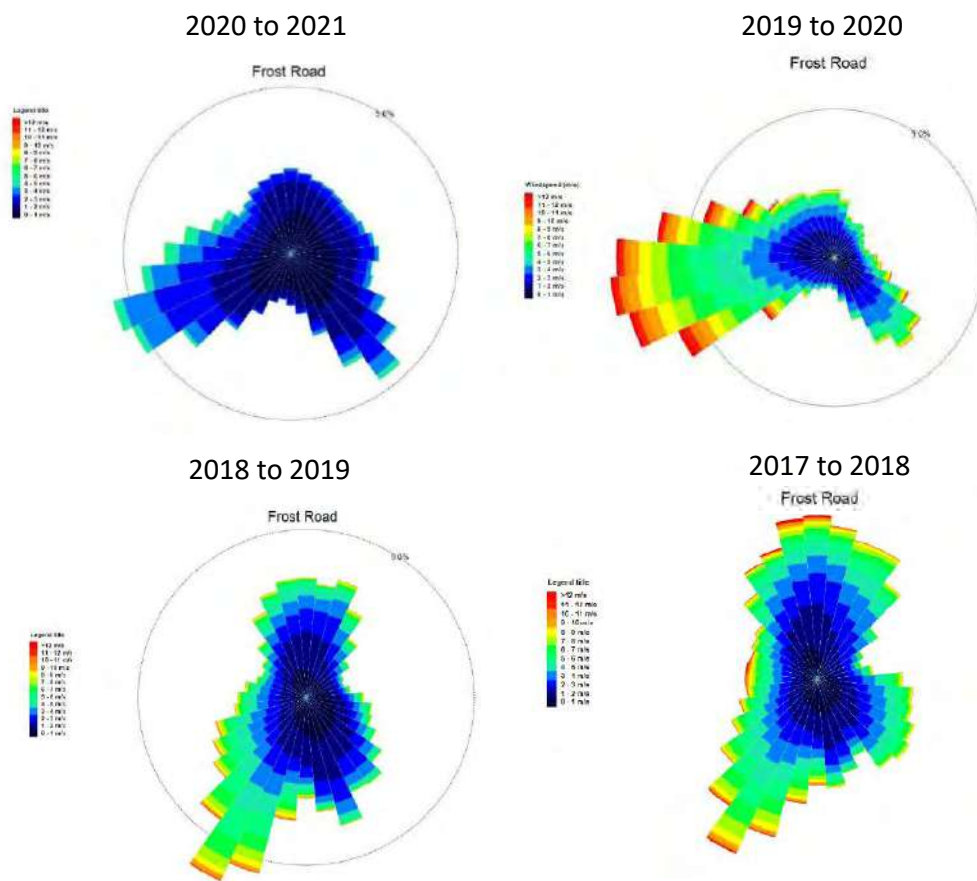


Figure 2. Frost Road Windroses.

In my original request for further information in December 2019 I raised the query that managed fill could contain quite elevated concentrations of contaminants that could be harmful to human health e.g. arsenic at up to 100 mg/kg and lead at up to 1000 mg/kg. While it is acknowledged that average concentrations over the longer term are going to be a lot lower than this, there is potential for elevated concentrations in dust in the short term after a specific load has been deposited. This section of the FIDOL assessment also refers to asbestos being enclosed in impermeable packaging material which will prevent emissions of ACM to air. However, this doesn't account for disposal of soils containing asbestos fibres which typically won't be wrapped, although will be covered during transport. So there is potential for discharges of asbestos fibres from unwrapped soils as they are being tipped if not managed properly.

Therefore, there is in my opinion, potential for offensiveness from dust discharges from soils with elevated levels of metals and soils containing asbestos fibres if poorly managed, but that this factor should be able to be mitigated through good dust control consistent with Industry best practice as set out in section 7 and adherence to the proposed controls identified in the Asbestos Management Plan.

PDP agreed but reiterated that average concentrations will typically be significantly lower than the acceptance criteria and that ACM fill has the potential to result in dust if poorly managed but that these discharges can be mitigated by adhering to the MfE's Good Practice Guide for Dust Management measures and adherence to the proposed controls identified in the Asbestos Fill Management Plan and Dust Management Plan.

I agree that these potential effects can be controlled sufficiently to avoid adverse effects beyond the boundary by adherence to the controls and practices recommended in the Dust Management Plan (consistent with the MfE GPG) and the Asbestos Fill Management Plan which I discuss in more detail below under Recommended Controls and Monitoring for Dust and Recommended Controls for Asbestos Management and Monitoring.

In addition to this, it's important to point out that asbestos only poses a risk to human health when free fibres become airborne above the trace level threshold of 0.01 fibres/ml. There are also specific regulations and controls for managing health and safety for workers on site in association with exposure to airborne asbestos fibres under the Health and Safety at Work Act 2015, the Health and Safety at Work (Asbestos) Regulations 2016 and the Approved Code of Practice: Management and Removal of Asbestos (ACOP, November 2016).

The main requirement under these regulations is that a PCBU (person conducting a business or undertaking) with management or control of a workplace needs to ensure asbestos is identified at a workplace including its location and that the PCBU prepares an asbestos management plan which identifies how exposure risks will be managed and may also include if required, air monitoring procedures. In addition to this, a PCBU must ensure that workers on site who may be exposed to asbestos have appropriate training and supervision.

Waikato Regional Council's statutory responsibility under the RMA is to ensure that air discharges beyond the boundary of the site are appropriately controlled such that there is no unacceptable risk to the environment (including human health) beyond that boundary. While WRC has no statutory responsibility through an RMA process for enforcing the Asbestos regulations, adherence to these regulations will mean that sensitive receptors beyond the boundary of the site will be appropriately

protected. In summary, if the occupational health and safety matters are properly addressed with regards management of asbestos, then the environmental matters that fall under the RMA will be properly addressed.

In summary I agree with PDP's conclusion that the discharges of dust from the activities associated with the proposed site is not expected to result in a significant dust nuisance or health effect relative to applicable air quality guidelines and standards provided the proposed mitigation and monitoring methods are implemented to control dust to an acceptable level as well as adherence to the proposed methods for managing and monitoring asbestos disposal. In my opinion, effects will be no more than minor from discharges associated with these sources subject to adherence to the controls and monitoring discussed below.

Combustion discharges

Combustion source emissions are associated with heavy equipment used in excavation and vehicles used to transport materials to and from the site which include sulphur dioxide (SO₂), nitrogen oxides (NO_x), carbon monoxide (CO) and fine particulate matter (PM₁₀ & PM_{2.5}). PDP has indicated that the overall number of vehicle movements at the quarry is not proposed to change as a result of the acceptance of fill material at the site due to the estimation that around 25% of trucks delivering aggregate will be bringing fill back from the project sites to deposit in the Fill areas.

Nitrogen oxides, specifically nitrogen dioxide (NO₂) is the main contaminant of concern from vehicle emissions. The closest residential receptor is 400 metres away. The University of Minnesota recommends a 200 metre setback for residential areas, schools, and day care facilities from a major road¹. Modelling work by Beca on NO_x concentrations at some busy intersections in Auckland predicted that the highest concentrations are within 30 to 40 metres from an intersection and reduce significantly to acceptable levels after 50 metres². In addition to this, an assessment of effects by Beca in 2018 determined that emissions from surface vehicles (NO₂, CO, and PM₁₀), associated with Project Martha operations at Martha open mine pit in Waihi will not result in exceedances of ambient air quality guidelines outside the mine boundary³.

Based on this assessment of a similar activity and recommended setbacks, I consider that the discharges to air associated with combustion of fuel from operation of vehicles and machinery on site will not result in any exceedances of relevant air quality standards and that effects beyond the boundary will be no more than minor.

Existing ambient air quality in vicinity of site

In assessing the level of effects, PDP has referred to the background ambient air quality monitoring undertaken by Genesis Energy as part of the requirements of operating the Huntly Power Station. Two stations are operated within Huntly township and two stations in the rural areas to the northeast and northwest of the proposed managed fill site with the closest station located 3.3 km northeast in Huntly township. The stations monitor PM₁₀, SO₂ and NO₂ and meteorology with no exceedances of the relevant air quality standards over the last 10 years except for one PM₁₀ exceedance at one of the rural stations 8 km to the northeast in 2013 and one exceedance at each of the four stations in December

¹ University of Minnesota, 2007. Design for Health, University of Minnesota, August 2007. Key Questions: Air Quality, Version 2.0.

² Needham C, Noonan M, 2014. At the crossroads for modelling. CASANZ Transport Workshop, Auckland, December 2014.

³ Project Martha – Assessment of Environmental Effects of Discharges to Air. Report prepared by Beca, 13 March 2018 (WRC Doc# 12546836).

2019 which were linked to the 2019 Australian bush fires⁴. In summary, the Huntly airshed and the rest of the region airshed (rural area surrounding the Huntly airshed) is in compliance with the National Environmental Standards for Air Quality. In my opinion I do not consider it likely that the proposed discharges to air associated with the managed fill operation will contribute to exceedances of air quality standards within the Huntly Airshed or the Rest of the Region Airshed.

Recommended controls and monitoring for dust

PDP recommends the following mitigation and monitoring:

- Preparation of a dust management plan;
- Restricting vehicle speeds at the site to 20 kph or less;
- Avoiding earthworks activities during periods of strong winds (>10 m/s as a 10 minute average)
- Inspection of loads to ensure they are not dusty;
- Covering and/or dampening of dusty loads;
- Dampening or covering of dusty loads during placement in the Fill Areas;
- Rehabilitation of completed sections of the Fill Areas as soon as practical to minimise the potential for dust; and
- Use of wheel wash stations at the site exit to minimise trackout of dust;
- Visual monitoring of dust which may include daily site inspections that are recorded and made available as a log to WRC when asked.
- Real time monitoring of wind speed and direction to assist with decision making for applying the appropriate level of controls and to assist with a trigger for increasing the level of dust control and wind speeds above 10 m/s as a potential threshold for ceasing work. Wind speed may be obtained from local weather forecasts for the purpose of scheduling the activities.

A dust management plan has been provided on page 434 of the the main application document. The plan was prepared by PDP on February 2020. This plan details a number of specific controls and procedures in addition to almost all of the original recommendations from the AEE apart from the cessation of earthworks during strong winds and onsite meteorology monitoring.

I agree with PDP's recommendations and consider that the Dust Management Plan is appropriately comprehensive but recommend that the additional recommendations on cessation of earthworks during strong winds and onsite meteorology monitoring is included.

Through a s92 request in December 2019, I asked PDP to provide some further discussion on the proposed mitigation of avoiding earthworks activities during periods of strong winds (>10 m/s as a 10 minute average). For example, would it be necessary to cease works if the wind is blowing away from sensitive receptors or if the wind is blowing towards sensitive receptors but the earthworks are being undertaken on the western boundary of Fill sites 2 or 3 where separation distances might be in the region of 800 to 1000 metres? Or should there be a lower wind speed alert if asbestos waste or soils with asbestos fibres is being deposited?

Installation of an onsite wind monitoring sensor would also provide a more localised and accurate determination of wind conditions on site compared with reliance on wind data obtained from an offsite meteorological station.

⁴ Ambient air quality monitoring report for the Waikato Region – 1998 to 2020, Waikato Regional Council Technical Report 21/33 (publication in progress).

PDP's response:

- We agree that a limitation on the operation ceasing when winds exceed 10 m/s could be applied so that earthworks cease when strong winds are from the west and south-southwest, and that this restriction also be limited to Fill Areas 4 and 5 as being nearest the sensitive receptors to the east and northnortheast. Application of controls within these parameters will provide sufficient mitigation of the potential effects.
- The separation distance of the dust-generating activities proposed at the site is sufficient that significant offsite effects are unlikely during periods of winds less than 10 m/s for all soils and associated contaminants, especially given the other proposed mitigations.
- We agree that installation of an on-site meteorological station, with capability for issuing text alerts at higher wind speeds, is good practice for managing the effects of wind-blown dust.

On this basis, I recommend a requirement for cessation of earthworks when winds from the west and south-southwest exceeds a windspeed of 10 m/s. This trigger for cessation should apply to Fill areas 3 and 4 but would not be necessary for Fill area 2. In addition to this, I recommend the following requirements for meteorological monitoring:

- The consent holder shall operate and maintain a meteorological station on the site to measure and record the air temperature, wind direction and wind velocity on a continuous basis (at no less than 10 minute intervals).
- A suitable anemometer or equivalent measurement device capable of measuring wind speeds at a resolution of no greater than 0.1 m/s and capable of measuring wind direction at a minimum wind speed of no greater than 0.1 m/s, should be referenced to true north and located at least 6 metres above ground and where practicable, free of influence from trees and other buildings or structures.
- The meteorological data shall be retained for the duration of the resource consent and data in excel or csv file format provided for any period to Waikato Regional Council within 48 hours of a request.
- The anemometer shall be calibrated annually, with the documentation of the calibration retained and appended to the annual report and also provided within one week of a request from the Waikato Regional Council.

Recommended controls and monitoring for asbestos

Controls and monitoring for asbestos are provided in a separate Asbestos Management Fill Plan (Aug 2020) and an Asbestos Air Monitoring Plan (13 July 2022), both prepared by PDP.

The management plan addresses procedures and controls associated with the acceptance of asbestos as Asbestos Containing Material (ACM) building waste, and asbestos-in-soil including from "Class A" asbestos removal activities within Fill Areas 2, 3 and 4 (noting that Fill Area 1 which is referred to in the plan is not included as part of this consent application). The plan has been prepared to guide a PCBU in their duty of compliance with the Asbestos Regulations and anticipated conditions of the proposed air discharge resource consent during the acceptance and disposal of these asbestos wastes at the site.

Asbestos/ACM waste and asbestos-in-soil imported to the site is required to be kept moist and encapsulated/covered during transport in accordance with the requirements of the ACOP and

WorkSafe which will be checked and enforced at the weighbridge against the pre-approval requirements prior to acceptance.

Ongoing management requirements include:

- Record keeping of type, volume and location within the fill areas;
- Dust suppression and daily cover;
- An asbestos-specific wheel and truck wash facility separate from the standard wheel washes required upon entry and exit;
- Worker training, inductions and health monitoring; and
- Air monitoring and regular reporting requirements and any notification of these results to neighbouring residents/site users (as required).

The principal aim is to eliminate/minimise as far as practicable the potential for airborne asbestos fibres to exceed “trace level” (0.01 fibres/ml of air) either at the boundary of the operational asbestos work zone or within the breathing zone of any worker not wearing PPE/RPE or a vehicle fitted with HEPA filtration.

Dust suppression using sprinklers/mist cannons etc. will be undertaken constantly in operational asbestos zones where asbestos/ACM waste and asbestos-in-soil is actively being disposed or disturbed.

Deposited waste will be capped with at least 0.2 metres of non-asbestos fill material within a maximum of two hours after placement of the asbestos related material.

Asbestos associated waste will only be received from pre-approved contractors with pre-approved contamination investigation and/ or a demolition/refurbishment survey for the source site. Records of source site, technical reports, transport and disposal locations will be maintained within a tracking database.

Class A/B building related materials will need to be double wrapped in 200 um polythene and Class A/B soils will need to be wrapped in 200 um polythene with asbestos waste and soils classified as asbestos related works and unlicensed asbestos works will not be required to be wrapped but all loads will be required to be covered with truck/trailer/skip cover.

These cover requirements proposed by PDP are in my opinion consistent with the Approved Code of Practice: Management and Removal of Asbestos (ACOP; November 2016), the New Zealand Guidelines for Assessing and Managing Asbestos in Soil (BRANZ, 2017) and the Technical Guidelines for Disposal to Land, WasteMINZ, August 2018.

The Asbestos management plan provides some summary details of the air monitoring which is also detailed in a separate Asbestos Air Monitoring Plan as well as procedures for dealing with emergency or urgent works involving asbestos and incident reporting and complaints register.

In my opinion the proposed controls and procedures detailed in the Asbestos Management Plan are appropriate for ensuring that effects will be no more than minor subject to adherence to those controls and procedures.

PDP's Asbestos Air Monitoring Plan provides details of monitoring locations, contingency and/or emergency response actions, sampling and analysis methodologies and reporting details. The scope of this plan is limited to the extent of Fill Areas 2, 3 and 4.

The plan details the frequency and locations including monitoring at the fill area boundary (4x air monitors per day with 1-2 downwind of asbestos zone, personnel air monitoring in the cab of at least one machine operating within the nearest vicinity of an operational asbestos zone, a minimum of 1-2 air monitors at or near the property boundaries closest to the neighbouring residential sites (i.e. north and east of the site). There will also be an optional/contingency monitor at the site weighbridge and adjacent to any simultaneous work occurring within the wider fill area. In an emergency situation there will also be an allowance for additional monitoring locations.

Air monitoring sampling to be undertaken as follows:

- Over 10 days within first 3 months of filling with a minimum of two monitoring events coinciding with Class A material disposal wherever possible.
- Favourable results (i.e. <0.01 fibres/mL) and subject to WDC/WRC approval will allow this air monitoring frequency to be reduced to monitoring on a quarterly basis (when asbestos/ACM waste and /or asbestos in soils filling is occurring) for the remainder of the first year of operation.
- If exceeding 0.01 fibres/mL then contingency/emergency actions will be required as specified in Table 3 to ensure that further investigation and monitoring is undertaken and if exceeding 0.02 fibres/mL then work on site is stopped and Worksafe, WDC and WRC are notified.

In my opinion, the proposed monitoring plan provides a comprehensive and flexible monitoring programme that will take in to account prevailing wind directions as well as exposure risk to onsite workers and offsite receptors and should provide WRC with the confidence that asbestos disposal is being controlled appropriately. I would however, recommend that as per my recommendation for managing dust discharges, it will be important to install and maintain an onsite meteorological station to also improve the ability for the consent holder to manage and monitor asbestos disposal.

Memo

File No: 22 02 09

Date: 9 August 2022 (updated 4 November 2022)

To: Emma Cowan, Resource Officer, Resource Use Directorate

From: Jonathan Caldwell, Senior Scientist, Science, Policy & Information Directorate

Subject: **Technical Assessment – Air Discharges - Gleeson’s Managed Fill**

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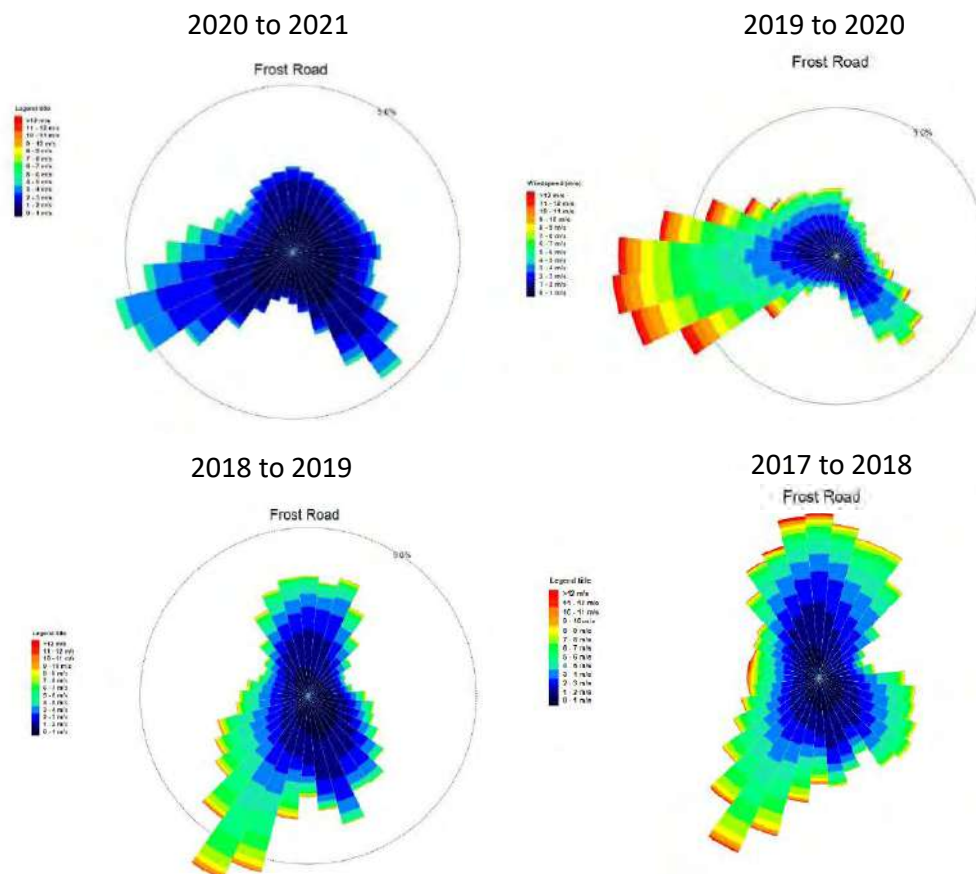


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concentrations over the longer term are going to be a lot lower than this, there is potential for elevated concentrations in dust in the short term after a specific load has been deposited. This section of the FIDOL assessment also refers to asbestos being enclosed in impermeable packaging material which will prevent emissions of ACM to air. However, this doesn't account for disposal of soils containing asbestos fibres which typically won't be wrapped, although will be covered during transport. So there is potential for discharges of asbestos fibres from unwrapped soils as they are being tipped if not managed properly.

Therefore, there is in my opinion, with regards to FIDOL factors, potential for offensiveness from dust discharges from soils with elevated levels of metals and soils containing asbestos fibres if poorly managed, but that this factor should be able to be mitigated through good dust control consistent with Industry best practice as set out in section 7 of the AEE for air discharges and adherence to the proposed controls identified in the Asbestos Management Plan.

PDP agreed but reiterated that average concentrations will typically be significantly lower than the acceptance criteria and that ACM fill has the potential to result in dust if poorly managed but that these discharges can be mitigated by adhering to the MfE's Good Practice Guide for Dust Management measures and adherence to the proposed controls identified in the Asbestos Fill Management Plan and Dust Management Plan.

I agree that these potential effects can be controlled sufficiently to avoid adverse effects beyond the boundary by adherence to the controls and practices recommended in the Dust Management Plan (consistent with the MfE GPG) and the Asbestos Fill Management Plan which I discuss in more detail below under Recommended Controls and Monitoring for Dust and Recommended Controls for Asbestos Management and Monitoring.

In addition to this, it's important to point out that asbestos only poses a risk to human health when free fibres become airborne above the trace level threshold of 0.01 fibres/ml. There are also specific regulations and controls for managing health and safety for workers on site in association with exposure to airborne asbestos fibres under the Health and Safety at Work Act 2015, the Health and Safety at Work (Asbestos) Regulations 2016 and the Approved Code of Practice: Management and Removal of Asbestos (ACOP, November 2016).

The main requirement under these regulations is that a PCBU (person conducting a business or undertaking) with management or control of a workplace needs to ensure asbestos is identified at a workplace including its location and that the PCBU prepares an asbestos management plan which identifies how exposure risks will be managed and may also include if required, air monitoring procedures. In addition to this, a PCBU must ensure that workers on site who may be exposed to asbestos have appropriate training and supervision.

Waikato Regional Council's statutory responsibility under the RMA is to ensure that air discharges beyond the boundary of the site are appropriately controlled such that there is no unacceptable risk to the environment (including human health) beyond that boundary. While WRC has no statutory responsibility through an RMA process for enforcing the Asbestos regulations, adherence to these regulations for protecting workers within the site boundary, will mean that sensitive receptors beyond the boundary of the site will be appropriately protected. In summary, if the occupational health and

safety matters are properly addressed with regards management of asbestos, then the environmental matters that fall under the RMA will be properly addressed.

Subsequent to my initial preparation of this Technical Assessment, I have now become aware of concerns raised through submissions on the application, specifically with regards to erionite and tremolite which I will address separately as follows.

Erionite fibres are naturally occurring minerals with similar chemical composition to asbestos but have been known overseas (particularly Turkey) to pose a more significant risk to human health from breathing airborne fibres.

Concern about erionite was raised previously in 2020 regarding a managed fill's acceptance of soil from Watercare's Central Interceptor pipe work that crossed a large part of Auckland where the presence of erionite may occur in association with zeolite minerals in bedrock, and the concern raised about potential contamination with erionite fibres during excavation and disposal. At the time I had a meeting with a landfill specialist and a geologist from Auckland Council who had both been involved with the Central Interceptor project. The geologist, Ross Roberts, knows the geology and doesn't consider it likely that soils would be contaminated with erionite. He says it is very speculative and the only way of analysing samples is to have them cryogenically prepared and sent to the US for Transmission Electron Microscopy. He has also been involved with some conversations had with Worksafe over this concern. An employee of Worksafe also considered it very speculative and agreed that there didn't need to be any additional controls in place for protecting workers who are excavating the soils. I also discussed it at the time with Dave Dangerfield and Simon Hunt from EHS, who are experts in risk management of asbestos, and their view was that it is all very speculative that the soil from the interceptor project would be contaminated with erionite fibres and that nobody seems to have provided any evidence of it.

In addition to this, I would also note that there is currently no health risk guideline that has been developed for airborne erionite fibres. So even if it was feasible to require air monitoring of erionite at the Gleeson Managed Fill site, the results of that monitoring would be difficult to interpret with regards to the risk it posed. There are also currently no standardised methods for erionite analysis. Samples would have to be potentially sent to the USA for Transmission Electron Microscopy, a very expensive and research-based analysis method. The turn-around time for getting results back from this analysis would likely be in the order of months so any monitoring would be extremely retrospective.

It is also important to point out that a significant volume of fill likely to be coming to the Gleeson site for disposal will be from surface soils from residential developments or shallow soil excavations associated with commercial developments which are very unlikely to be within the mineralised areas in deep bedrock that may potentially contain erionite where zeolite mineralisation occurs. Large infrastructure projects that are more likely to cut through those mineralised areas are more likely to be part of large-scale tunnelling projects. Tunnelling Boring Machine (TBM) spoil is more likely to be of concern in my view due to the presence of organic contaminants associated with drilling additives.

In my opinion, there is insufficient evidence that erionite is likely to be an air borne contaminant of concern and it is not feasible to require the applicant to monitor for it. Disposal of erionite in a managed fill once covered over would not pose any more risk to the environment compared to asbestos contaminated soils but there is, however, uncertainty around the risk to onsite workers during the disposal. However, I am recommending that Tunnelling Boring Machine spoil should not be

accepted for disposal at this managed fill site (refer to my Technical Assessment for discharges to land and water WRC Doc# 24065024) on the basis of risk from tunnelling drilling additives that typically can have high eco-toxicity. On the basis that TBM spoil is excluded, I also do not anticipate any concern over erionite contamination of soils that are disposed of at the site.

With regards to one submitter's concern about tremolite, there is always the possibility of naturally occurring forms of asbestos such as tremolite being present in soils from the Auckland region. Despite this, there is a much greater possibility of asbestos being present in soils arising from asbestos containing building materials that have been either buried, damaged or have disintegrated over the years and shed fibres in to surrounding soils. Residential properties are likely to be the most significant source of this asbestos contamination. I therefore consider the potential risk from naturally occurring asbestos in soils to be inconsequential compared to residential and commercial sources. I would also note that any cleanfill operation is just as likely to receive soils potentially containing natural sources of asbestos and yet they would have less specific controls or management procedures in place to deal with that risk compared with a managed fill.

I also do not consider it necessary for separate monitoring of airborne tremolite as opposed to airborne asbestos fibre monitoring. Worksafe's requirements around monitoring of airborne asbestos fibres does not require individual identification of each of the different species of asbestos fibre. I am also not aware of a specific health risk limit for tremolite that could be used as a trigger limit compared to asbestos fibres in general.

With regards to concerns raised by many submitters regarding dust in general, I note that many of these concerns relate to dust generated from truck movements along Riverview Road and from some of the truck laybys near to and adjacent to the site entrance. It is evident that the source of this dust is from the trucks and their movements and does indicate that the truck loads are not necessarily being properly covered and or trucks are not using the onsite truck wash and are tracking soil offsite.

In addition to this, some of the submitters have provided photos of fugitive dust clouds over the quarry area and while the photos do not necessarily indicate that the dust is travelling beyond the site boundary, it is indicative of poor onsite dust control for the current quarry operation. In addition to this some submitters have indicated concerns about dust deposition on the windows of their houses and vehicles parked facing the quarry direction. This does indicate to me that at times fugitive dust is discharging beyond the site although it is unclear whether this is dust generated from the quarry itself or resuspended dust from Riverview Road as trucks are driving to and from the quarry, or a combination of the two sources.

While there doesn't appear to be many recorded complaints around dust that have been received by WRC over the last few years, the information provided by the submitters does indicate that a higher level of dust control is required. I am aware that the site are currently upgrading the site entrance and truck wash and will be undertaking a comprehensive clean-up and upgrade of the road which should help reduce impacts on neighbours.

As discussed earlier in my assessment, the proposed mitigation and monitoring methods for dust control for the managed fill operation are in my opinion consistent with best practice. I agree with PDP that the contribution of dust from the proposed managed fill activities is likely to be low compared to the existing quarry activities. However, it will be necessary that a proactive rather than a reactive

approach is taken to dust control and that these controls and procedures are adhered to and complied with as well as dust controls and procedures relating to the existing quarry operation to ensure a no more than minor level of effect beyond the boundary.

In summary I agree with PDP's conclusion that the discharges of dust from the activities associated with the proposed site is not expected to result in a significant dust nuisance or health effect relative to applicable air quality guidelines and standards provided the proposed mitigation and monitoring methods are implemented to control dust to an acceptable level as well as adherence to the proposed methods for managing and monitoring asbestos disposal. In my opinion, effects will be no more than minor from discharges associated with these sources subject to adherence to the controls and monitoring discussed below.

Odour

Several submitters have raised concern regarding the potential for odour associated with the managed fill operation. It appears some of this concern relates to potential odour arising from acceptance of marine sediments. I have made separate comment on this issue under my Technical Assessment for discharges to land and water (WRC Doc# 24065024). While I consider that the odour risk could be properly managed, from this source, my recommendation is that this material should not be accepted at the site due to uncertainties around contaminants that can typically accumulate in marine sediments.

With regards to concern for odour from other sources, it is important to note that this managed fill operation will not be accepting putrescible materials such as food and animal waste or green waste that can generate odorous gases on breakdown.

In summary, I do not consider odour as a discharge of concern based on the proposed activity. However, I am aware that there have been situations at other sites where non-compliant fill has been received which has resulted in odour issues. I would therefore recommend that a condition of consent is included that provides specific restrictions around this as follow:

The discharge shall not result in odour that is objectionable to the extent that it causes an adverse effect at or beyond the boundary of the subject property.

Combustion discharges

Combustion source emissions are associated with heavy equipment used in excavation and vehicles used to transport materials to and from the site which include sulphur dioxide (SO₂), nitrogen oxides (NO_x), carbon monoxide (CO) and fine particulate matter (PM₁₀ & PM_{2.5}). PDP has indicated that the overall number of vehicle movements at the quarry is not proposed to change as a result of the acceptance of fill material at the site due to the estimation that around 25% of trucks delivering aggregate will be bringing fill back from the project sites to deposit in the Fill areas.

Nitrogen oxides, specifically nitrogen dioxide (NO₂) is the main contaminant of concern from vehicle emissions. The closest residential receptor is 400 metres away. The University of Minnesota recommends a 200 metre setback for residential areas, schools, and day care facilities from a major road¹. Modelling work by Beca on NO_x concentrations at some busy intersections in Auckland

¹ University of Minnesota, 2007. Design for Health, University of Minnesota, August 2007. Key Questions: Air Quality, Version 2.0.

predicted that the highest concentrations are within 30 to 40 metres from an intersection and reduce significantly to acceptable levels after 50 metres². In addition to this, an assessment of effects by Beca in 2018 determined that emissions from surface vehicles (NO₂, CO, and PM₁₀), associated with Project Martha operations at Martha open mine pit in Waihi will not result in exceedances of ambient air quality guidelines outside the mine boundary³.

Based on this assessment of a similar activity and recommended setbacks, I consider that the discharges to air associated with combustion of fuel from operation of vehicles and machinery on site will not result in any exceedances of relevant air quality standards and that effects beyond the boundary will be no more than minor.

Existing ambient air quality in vicinity of site

In assessing the level of effects, PDP has referred to the background ambient air quality monitoring undertaken by Genesis Energy as part of the requirements of operating the Huntly Power Station. Two stations are operated within Huntly township and two stations in the rural areas to the northeast and northwest of the proposed managed fill site with the closest station located 3.3 km northeast in Huntly township. The stations monitor PM₁₀, SO₂ and NO₂ and meteorology with no exceedances of the relevant air quality standards over the last 10 years except for one PM₁₀ exceedance at one of the rural stations 8 km to the northeast in 2013 and one exceedance at each of the four stations in December 2019 which were linked to the 2019 Australian bush fires⁴. In summary, the Huntly airshed and the rest of the region airshed (rural area surrounding the Huntly airshed) is in compliance with the National Environmental Standards for Air Quality. In my opinion I do not consider it likely that the proposed discharges to air associated with the managed fill operation will contribute to exceedances of air quality standards within the Huntly Airshed or the Rest of the Region Airshed.

Recommended controls and monitoring for dust

PDP recommends the following mitigation and monitoring:

- Preparation of a dust management plan;
- Restricting vehicle speeds at the site to 20 kph or less;
- Avoiding earthworks activities during periods of strong winds (>10 m/s as a 10 minute average)
- Inspection of loads to ensure they are not dusty;
- Covering and/or dampening of dusty loads;
- Dampening or covering of dusty loads during placement in the Fill Areas;
- Rehabilitation of completed sections of the Fill Areas as soon as practical to minimise the potential for dust; and
- Use of wheel wash stations at the site exit to minimise trackout of dust;
- Visual monitoring of dust which may include daily site inspections that are recorded and made available as a log to WRC when asked.
- Real time monitoring of wind speed and direction to assist with decision making for applying the appropriate level of controls and to assist with a trigger for increasing the level of dust control and wind speeds above 10 m/s as a potential threshold for ceasing work. Wind speed may be obtained from local weather forecasts for the purpose of scheduling the activities.

² Needham C, Noonan M, 2014. At the crossroads for modelling. CASANZ Transport Workshop, Auckland, December 2014.

³ Project Martha – Assessment of Environmental Effects of Discharges to Air. Report prepared by Beca, 13 March 2018 (WRC Doc# 12546836).

⁴ Ambient air quality monitoring report for the Waikato Region – 1998 to 2020, Waikato Regional Council Technical Report 21/33 (publication in progress).

A dust management plan has been provided on page 434 of the main application document. The plan was prepared by PDP on February 2020. This plan details a number of specific controls and procedures in addition to almost all of the original recommendations from the AEE apart from the cessation of earthworks during strong winds and onsite meteorology monitoring.

I agree with PDP's recommendations and consider that the Dust Management Plan is appropriately comprehensive but recommend that the additional recommendations on cessation of earthworks during strong winds and onsite meteorology monitoring is included.

Through a s92 request in December 2019, I asked PDP to provide some further discussion on the proposed mitigation of avoiding earthworks activities during periods of strong winds (>10 m/s as a 10 minute average). For example, would it be necessary to cease works if the wind is blowing away from sensitive receptors or if the wind is blowing towards sensitive receptors but the earthworks are being undertaken on the western boundary of Fill sites 2 or 3 where separation distances might be in the region of 800 to 1000 metres? Or should there be a lower wind speed alert if asbestos waste or soils with asbestos fibres is being deposited?

Installation of an onsite wind monitoring sensor would also provide a more localised and accurate determination of wind conditions on site compared with reliance on wind data obtained from an offsite meteorological station.

PDP's response:

- We agree that a limitation on the operation ceasing when winds exceed 10 m/s could be applied so that earthworks cease when strong winds are from the west and south-southwest, and that this restriction also be limited to Fill Areas 4 and 5 as being nearest the sensitive receptors to the east and north-northeast. Application of controls within these parameters will provide sufficient mitigation of the potential effects.
- The separation distance of the dust-generating activities proposed at the site is sufficient that significant offsite effects are unlikely during periods of winds less than 10 m/s for all soils and associated contaminants, especially given the other proposed mitigations.
- We agree that installation of an on-site meteorological station, with capability for issuing text alerts at higher wind speeds, is good practice for managing the effects of wind-blown dust.

On this basis, I recommend a requirement for cessation of earthworks when winds from the west and south-southwest exceeds a windspeed of 10 m/s. This trigger for cessation should apply to Fill areas 3 and 4 but would not be necessary for Fill area 2. In addition to this, I recommend the following requirements for meteorological monitoring:

- The consent holder shall operate and maintain a meteorological station on the site to measure and record the air temperature, wind direction and wind velocity on a continuous basis (at no less than 10 minute intervals).
- A recommendation on the location of the meteorological station shall be made by a suitably qualified and experienced practitioner to ensure that it is positioned in a suitably representative location with respect to the managed fill operation. The finalised location shall be approved by Waikato Regional Council.
- A suitable anemometer or equivalent measurement device capable of measuring wind speeds at a resolution of no greater than 0.1 m/s and capable of measuring wind direction at a

minimum wind speed of no greater than 0.1 m/s, should be referenced to true north and located at least 6 metres above ground and where practicable, free of influence from trees and other buildings or structures.

- The meteorological data shall be retained for the duration of the resource consent and data in excel or csv file format provided for any period to Waikato Regional Council within 48 hours of a request.
- The anemometer shall be calibrated annually, with the documentation of the calibration retained and appended to the annual report and also provided within one week of a request from the Waikato Regional Council.

Recommended controls and monitoring for asbestos

Controls and monitoring for asbestos are provided in a separate Asbestos Management Fill Plan (Aug 2020) and an Asbestos Air Monitoring Plan (13 July 2022), both prepared by PDP.

The management plan addresses procedures and controls associated with the acceptance of asbestos as Asbestos Containing Material (ACM) building waste, and asbestos-in-soil including from “Class A” asbestos removal activities within Fill Areas 2, 3 and 4 (noting that Fill Area 1 which is referred to in the plan is not included as part of this consent application). The plan has been prepared to guide a PCBU in their duty of compliance with the Asbestos Regulations and anticipated conditions of the proposed air discharge resource consent during the acceptance and disposal of these asbestos wastes at the site.

Asbestos/ACM waste and asbestos-in-soil imported to the site is required to be kept moist and encapsulated/covered during transport in accordance with the requirements of the ACOP and WorkSafe which will be checked and enforced at the weighbridge against the pre-approval requirements prior to acceptance.

Ongoing management requirements include:

- Record keeping of type, volume and location within the fill areas;
- Dust suppression and daily cover;
- An asbestos-specific wheel and truck wash facility separate from the standard wheel washes required upon entry and exit;
- Worker training, inductions and health monitoring; and
- Air monitoring and regular reporting requirements and any notification of these results to neighbouring residents/site users (as required).

The principal aim is to eliminate/minimise as far as practicable the potential for airborne asbestos fibres to exceed “trace level” (0.01 fibres/ml of air) either at the boundary of the operational asbestos work zone or within the breathing zone of any worker not wearing PPE/RPE or a vehicle fitted with HEPA filtration.

Dust suppression using sprinklers/mist cannons etc. will be undertaken constantly in operational asbestos zones where asbestos/ACM waste and asbestos-in-soil is actively being disposed or disturbed.

Deposited waste will be capped with at least 0.2 metres of non-asbestos fill material within a maximum of two hours after placement of the asbestos related material.

Asbestos associated waste will only be received from pre-approved contractors with pre-approved contamination investigation and/or a demolition/refurbishment survey for the source site. Records of source site, technical reports, transport and disposal locations will be maintained within a tracking database.

Class A/B building related materials will need to be double wrapped in 200 um polythene and Class A/B soils will need to be wrapped in 200 um polythene with asbestos waste and soils classified as asbestos related works and unlicensed asbestos works will not be required to be wrapped but all loads will be required to be covered with truck/trailer/skip cover.

These cover requirements proposed by PDP are in my opinion consistent with the Approved Code of Practice: Management and Removal of Asbestos (ACOP; November 2016), the New Zealand Guidelines for Assessing and Managing Asbestos in Soil (BRANZ, 2017) and the Technical Guidelines for Disposal to Land, WasteMINZ, August 2018.

The Asbestos management plan provides some summary details of the air monitoring which is also detailed in a separate Asbestos Air Monitoring Plan as well as procedures for dealing with emergency or urgent works involving asbestos and incident reporting and complaints register.

In my opinion the proposed controls and procedures detailed in the Asbestos Management Plan are appropriate for ensuring that effects will be no more than minor subject to adherence to those controls and procedures.

PDP's Asbestos Air Monitoring Plan provides details of monitoring locations, contingency and/or emergency response actions, sampling and analysis methodologies and reporting details. The scope of this plan is limited to the extent of Fill Areas 2, 3 and 4.

The plan details the frequency and locations including monitoring at the fill area boundary (4x air monitors per day with 1-2 downwind of asbestos zone, personnel air monitoring in the cab of at least one machine operating within the nearest vicinity of an operational asbestos zone, a minimum of 1-2 air monitors at or near the property boundaries closest to the neighbouring residential sites (i.e. north and east of the site). There will also be an optional/contingency monitor at the site weighbridge and adjacent to any simultaneous work occurring within the wider fill area. In an emergency situation there will also be an allowance for additional monitoring locations.

Air monitoring sampling to be undertaken as follows:

- Over 10 days within first 3 months of filling with a minimum of two monitoring events coinciding with Class A material disposal wherever possible.
- Favourable results (i.e. <0.01 fibres/mL) and subject to WDC/WRC approval will allow this air monitoring frequency to be reduced to monitoring on a quarterly basis (when asbestos/ACM waste and /or asbestos in soils filling is occurring) for the remainder of the first year of operation.
- If exceeding 0.01 fibres/mL then contingency/emergency actions will be required as specified in Table 3 to ensure that further investigation and monitoring is undertaken and if exceeding 0.02 fibres/mL then work on site is stopped and Worksafe, WDC and WRC are notified.

In my opinion, the proposed monitoring plan provides a comprehensive and flexible monitoring programme that will take in to account prevailing wind directions as well as exposure risk to onsite workers and offsite receptors and should provide WRC with the confidence that asbestos disposal is being controlled appropriately. I would however, recommend that as per my recommendation for managing dust discharges, it will be important to install and maintain an onsite meteorological station to also improve the ability for the consent holder to manage and monitor asbestos disposal.

Conclusion

PDP has identified and assessed both dust and combustion related discharges to air associated with the managed fill activities, including vehicle movements, stripping of topsoil for establishing fill areas, placement of fill including asbestos containing materials, rehabilitation of fill areas with topsoil and fugitive emissions from exposed surfaces. I do not anticipate any risk of odour effects as long as there is compliance with acceptance of the specified types of fill that can be received at the site.

In summary I agree with PDP's conclusion that the discharges of dust from the activities associated with the proposed operation is not expected to result in a significant dust nuisance or health effect relative to applicable air quality guidelines and standards provided the proposed mitigation and monitoring methods are implemented to control dust to an acceptable level as well as adherence to the proposed methods for managing and monitoring asbestos disposal. In my opinion, effects will be no more than minor from discharges associated with these sources but this is subject to a proactive adherence to the controls, monitoring and management procedures that have been proposed and the additional recommendations that I have made.

WAIKATO DISTRICT COUNCIL

S42A Report

Appendix I

Ecological Review - Papawera Geological Consulting

The Department of Conservation submissions and my responses are as follows

Department of Conservation submission	My responses
<p>1. The site of the proposed fill operation is likely to be habitat for lizard species including copper skink, and a range of bird species including threatened species.</p>	<p>That possibility was raised in the EIA.</p> <p>Suggest that a lizard management plan be proposed as a condition of consent (not offered in the proposed draft conditions, Appendix 19 of the submitted documents)). This may include salvage of native lizards prior to works being undertaken.</p> <p>Two threatened bird species have been noted during bird surveys, both are likely transient, habitat quality is poor and compensation works will create improved habitat through predator control and new native plantings.</p>
<p>2. The applicant has identified shortfin eels and koura within the site, but other freshwater species recorded in the vicinity include the At Risk species longfin eel, giant kōkopu, inanga and torrentfish, and the Threatened species shortjaw kōkopu and lamprey.</p>	<p>Regional matter</p>
<p>3. The site is used by long-tailed bats, which have a threat classification of 'Nationally Critical' (the highest threat, the same as the kākāpō).</p>	<p>This has been acknowledged and a bat compensation and management plan appended to the application. However, it is not referred to in the draft conditions of consent offered by the applicant (Appendix 19 of the submitted documents).</p> <p>Suggest a condition of consent be included to implement and report on the BMP.</p>
<p>4. The fill operation has the potential to adversely affect these conservation values through direct disturbance, loss of habitat, sedimentation, and changes to hydrology. It will also result in the loss of gully systems, wetlands and ephemeral and intermittent streams, and associated aquatic values.</p>	<p>Loss of terrestrial habitat will occur and is adequately addressed via proposed compensation works. However, the quantum of terrestrial habitat loss was not included in the original EIA. It was separately assessed and reported by Envoco in 2022. It is unclear in the draft conditions offered by the applicant whether a new EMP is being offered or if the applicant is proposing to implement the Wildlands 2020 version. The applicant's draft consent conditions state <i>"In addition to condition 20 above, the Consent Holder shall undertake all ecological mitigations in accordance with the Ecological Enhancement Programme as appended to these conditions of consent (Schedule Two).</i></p> <p>Sch2 is a map of the compensation area, with details to be determined. It refers to a works programme in an EMP, presumably the</p>

	<p>Wildlands version, Appendix 12.3 of the EIA - for avoidance of doubt that should be specified. The EMP in Appendix 12.3 of the EIA does not address bats or lizards.</p> <p>The loss of wetland habitat has not been adequately addressed.</p> <p>Riverine systems are outside of scope for my experience and best addressed by an aquatic ecologist and hydrologist.</p>
<p>5. Despite the presence of these conservation values, the Ecological Impact Assessment (Boffa Miskell, November 2019) was undertaken without surveys for lizards, bats or breeding wetland birds and waterfowl, so is significantly incomplete. It appears that some surveys have since been undertaken (eg there is reference to bat surveys), but the results of these have not been clearly incorporated into the final application.</p>	<p>Agree that the EIA was deficient. The EIA acknowledged that and said fauna surveys should be undertaken. Agree that some later surveys, including quantum of terrestrial vegetation loss have not all been incorporated into the application adding complexity for submitters.</p> <p>The EIA is also out of date in some respects, for instance some of the wetland area described has been drained and filled. A fully revised EIA would have been helpful for submitters.</p>
<p>6. The application places significant reliance on conditions and management plans which are as yet unconfirmed, and as noted above it is unclear to what extent ecological surveys have been undertaken and responded to in those conditions and management plans. The proffered draft conditions (as contained in the application information on the WDC website) do not include district consent conditions, so it is unclear if or how bat and fauna management plans referred to in other parts of the application would be given effect.</p>	<p>Several surveys and supplementary documents have been undertaken since the EIA was prepared. Some may not have been made available for submitters to assess. Others are publicly available as Appendices within Appendix 12 of the application documentation. These include an EMP for the compensation site (Wildlands in 2020, Appendix) and a bat management plan.</p> <p>Not appended are documents produced by Envoco including a pest monitoring plan, a report on works commenced in 2022, and an assessment on extent and type of terrestrial vegetation to be cleared.</p> <p>Agree with DOC that the offered draft conditions do not include:</p> <ul style="list-style-type: none"> • Bat compensation plan • Lizard surveys/salvage • Specific reference to the Wildlands EMP in Appendix 12.3 of the EIA <p>It is unclear from the draft conditions if the proposed EMP is the Wildlands report or if the applicant is proposing to develop a revised version.</p>

<p>7. The consent durations sought of 35 years are unreasonable (particularly for discharges) given the potential for cumulative effects, and the fact that there will be significant changes to planning legislation and the regional plan framework over that time.</p>	<p>Planning matter</p>
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20 October 2022

Julia Masters
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Level 1, 71 London Street, Hamilton 3204

Re: Gleeson and Cox Fill Consent Application: Ecological Effects assessment for Waikato District Council

1 Background

Gleeson Quarries Huntly Limited is seeking resource consent to create an overburden placement site and operate a managed / clean fill site at the Huntly Quarry. It is anticipated that the same fill areas will be used for both overburden and managed fill. The proposed fill sites are located on farmland around the north and western sides of Huntly Quarry on Riverview Road, Huntly.

The proposal will affect areas of indigenous vegetation (terrestrial and wetland) and native fauna habitat within the Waikato District, and trigger rules in the Operative and Proposed Waikato District Plans.

You have asked me to consider, in relation to the proposal:

- Effects on indigenous vegetation loss
- Effects on habitat loss
- Effects on fauna
- Fragmentation and/or isolation of ecosystems and habitats
- Damage/disruption to ecological processes, functions and ecological integrity, including ecosystem services
- Cumulative effects of vegetation clearance
- Ability to offset effects

2 Summary

1. The proposal will result in the loss of 3327 m² of indigenous terrestrial vegetation¹, including riparian vegetation, secondary scrub, and self-established indigenous understory beneath exotic trees², along with 9 mature native trees (two unhealthy),

¹ Envoco, September 2022

² See Figure 1, Appendix 4 of this memo

and resultant loss of habitat for common native bird species, long-tailed bats and possibly lizards including copper skinks (At Risk-Declining).

2. It will also result in the permanent loss of at least 1869 m² of wetland habitat and some loss of habitat for short-fin eels (not threatened).
3. A bat management and monitoring plan has been prepared, and, with a few minor additions, can adequately address the likely potential impacts on long-tailed bats.
4. A lizard management plan has not been prepared, but can be included as a condition of consent.
5. Earthworks will be undertaken within an SNA, but of an inconsequential scale (digging holes for compensation planting).
6. A compensation package is proposed³ that comprises fencing, pest and weed control, 12,109 m² of terrestrial planting, and 2,400 m² of wetland planting (but note 1500 m² of it is within an area of existing native wetland grassland that was mapped in the EMP as exotic grassland).
7. Three of the compensation activities (fencing the compensation site, planting and plant pest control within 2,400 m² of the wetland in the compensation site) were offered by the applicant as mitigation for unconsented drainage of Fill Area (FA) 3 which was undertaken prior to this application. I have discounted those activities from my assessment of offsets for FA2, FA4 and the remnants of the FA3 wetland as of 7 June 2022. Some of the mitigation works for FA3 included unconsented spraying of indigenous wetland vegetation and poisoning via drilling > 500 m² of exotic wetland vegetation - potentially in breach of the NES Freshwater Management and regional and district plan rules.
8. The residual proposed compensation activities are planting and weed control in terrestrial parts of the compensation site, and animal pest control, which will adequately mitigate the loss of terrestrial vegetation and habitat in the fill areas. Some of these activities had already occurred as of 7 June 2022.
9. The proposed compensation package (excluding works completed to mitigate the unconsented FA3 wetland loss) will not mitigate the proposed additional loss of at least 1869 m² of significant wetland in FA2, FA4 and remnants in FA3. No mitigation has been offered for spraying up to 2000 m² of native swamp millet in the compensation area.
10. Wetland areas could be created in association with the proposed sediment ponds, which may provide suitable wetland loss offsets.
11. Some ecological monitoring for the compensation works is variously proposed in multiple documents including the EIA, the EMP⁴, an Envoco monitoring report, and a separate Envoco pest animal management plan⁵. For avoidance of doubt about what will be done, where, when and for how long, these documents should be compiled into a single comprehensive ecological monitoring plan for the compensation area,

³ Wildlands May 2020

⁴ Wildlands May 2020

⁵ Envoco 2021. Pest Animal Management Plan

with a clear monitoring timeframe, and regular (at least annual) reporting to council. This can be included as a condition of consent.

3 Scope and Methods

My area of expertise lies within wetland ecosystems and terrestrial and wetland ecology.

My understanding is:

- Gleeson Group are seeking resource consent from Waikato Regional Council and Waikato District Council to fill four sites with overburden and managed fill on their land at Huntly.
- Three fill sites include wetlands, all of which are deemed in the applicant's EIA to meet the Waikato Regional Policy Statement definition of significant area of indigenous vegetation or habitat for indigenous fauna. One of these areas (Fill Area 3) was dominated by indigenous wetland species⁶, and supported native fauna (short-fin eels) but was partially drained prior to resource consent being issued.
- A mitigation package involving a single compensation site has been proposed, comprising a nearby gully (approximately 1 km west of the fill areas) with remnant indigenous forest and wetland, part of which is sited within a WDC SNA. The compensation package comprises planting, weed control, pest control and fencing from stock. Parts of the compensation package were offered in August 2020 to mitigate the unconsented loss of Fill Area 3 prior to the application being lodged⁷.
- The application will be publicly notified.

I have reviewed (among other material provided by Paua Planning via a shared online drive) the following documents and base my comments on these documents, aerial/satellite images, and a site visit on 7 June 2022.

1. A letter from Dr Jamie MacKay, Senior Ecologist, Wildland Consultants, to Bianca Schoeman, Paua Planning Ltd, 12 November 2019 titled GLEESON QUARRY HUNTLY OFFSET LOCATION ASSESSMENT.
2. Gleeson Quarries Huntly Limited - District and Regional Resource consents for new fill sites within quarry landholdings: Ecological Impact Assessment. Boffa Miskell Ltd 14 November 2019.
3. An ecological mitigation/compensation plan prepared by Wildland Consultants, May 2020: Contract Report No. 5208f: ECOLOGICAL MANAGEMENT PLAN FOR THE PROPOSED COMPENSATION SITE AT GLEESON QUARRY, HUNTLY.
4. An email from Kate Madsen, Director & Principal Planner, Paua Planning Ltd, to Emma Cowan (Waikato Regional Council), 18 August 2020. "PROPOSED MITIGATION FOR DRAINAGE OF WETLAND POND IN 'FILL AREA 3' ON GLEESON LANDHOLDINGS, HUNTLY".
5. Letter from Stantec to Gleeson Group, 24 December 2021, titled Huntly Managed Fill: Wetland Peer Review.
6. Reply to s92 request for further information from Kate Madsen, Paua Planning Ltd, 20 June 2022.
7. Bat Management Plan, Wildland Consultants 2020.
8. Envoco Pest Management Plan, May 2021.

⁶ According to Boffa Miskell 2019, Environmental Impact Assessment, pg 11.

⁷ Letter from Paua Planning to Emma Cowan, 18 August 2020

9. Envoco, Ecological Mitigation Monitoring Report Gleeson Huntly Quarry Gleeson & Cox Ltd May 2022
10. Paua Planning, 28 June 2022. ASSESSMENT OF EFFECTS PROPOSED OVERBURDEN & MANAGED FILL ACTIVITY RIVERVIEW ROAD HUNTLY
11. Envoco, Quantification of indigenous terrestrial vegetation in Fill Areas 2 and 4. September 2022.
12. Additional material emailed to me, including a response to a s92 request for further information.

On 7 June 2022, I conducted a half-day site visit with Josh Joshua Evans, Resource Officer, Waikato Regional Council. We were driven to a ridge above Fill sites 2, 3, and 4, and guided to Compensation Area 4 by Shawn McLean, Gleeson Group. Shawn did not accompany us on foot. We walked Fill Site 2 and looked at the stream gully below it, we traversed Fill Site 3, and looked at Fill Site 4 and the stream gully below it. We then drove to and walked much of the length of the wetland in Compensation Area 4, at least as far up as the confluence of the two headwater gullies that comprise an SNA.

4 Relevant district policies

See Appendix 1 for a more detailed assessment of the ODP and PDP policies related to biodiversity. These include provisions for identified significant areas of indigenous vegetation and habitat for indigenous fauna, and for biodiversity outside of significant areas (including in wetlands and indigenous vegetation understory).

The relevant policies include application of an effects hierarchy to avoid, remedy, then mitigate adverse effects on indigenous biodiversity, including indigenous vegetation and significant habitats for indigenous fauna. They provide for biodiversity offsetting where adverse effects cannot be avoided or remedied.

5 Relevant district rules and definitions

The proposed activities will have the following effects relevant to the OPD and PDP:

- Clearance of up to⁸ 1869 hectares of indigenous wetland vegetation and habitat.
- Clearance of 3327 m² of indigenous terrestrial forest and scrub and indigenous understory vegetation⁹.
- Clearance of 9 mature native trees (two unhealthy tawa unlikely to survive in their exposed situation, and 7 rimu trees up to 20 m tall)¹⁰.
- Loss of habitat for shortfin eels (not threatened)
- Loss of roost habitat for long-tailed bat (Nationally Critical).

⁸ The applicants have quantified the area of wetland affected, this may include areas of open water. Precise extents for the vegetated sections of the wetlands have not been provided. Note this is based on the situation as at 2022 and does not include up to 4.2 hectares of native rush-dominated inundated paddock per Boffa Miskell 2019, EIA pg 11, and illegally drained in 2020. It does not include areas of wetland seen below fill Areas 2 and 4 during my site visit 7 June 2022, however these are not expected to be affected by the application (based on Erosion & Sediment Control Plans revised 18 Sept 2022).

⁹ Envoco, September 2022, Quantification of indigenous terrestrial vegetation in Fill Areas 2 and 4

¹⁰ Envoco, September 2022, Quantification of indigenous terrestrial vegetation in Fill Areas 2 and 4

- Potential loss of habitat for copper skinks (At Risk- Declining) and NZ pipit (At Risk-Declining).

See Appendix 2 for a full assessment of the ODP and PDP rules and Table 1 for a list of relevant definitions and assessment notes. See Appendix 3 for a detailed assessment of ecological effects of the proposal.

Table 2 provides an assessment of the areas that will be cleared against the matters over which council maintains discretion.

Under the Operative Waikato District Plan (Decisions Version) restricted discretionary consents are required for;

- 25.43A Indigenous vegetation clearance, unless the Council certifies that the vegetation to be cleared is not significant indigenous vegetation or significant habitat of indigenous fauna.

Under the Proposed Waikato District Plan (Decisions Version) restricted discretionary consents are required for;

- ECO-R3 Earthworks in a Significant Natural Area for purposes other than the
- maintenance of existing tracks, fences or drains
- ECO-R11 Vegetation clearance outside a Significant Natural Area
- ECO-R15 Clearance of manuka or kanuka outside a Significant Natural Area
- ECO-R16 Vegetation clearance outside a Significant Natural Area for any reason not specified in Standards ECO-R11 to ECO-R15

Table 1: Relevant definitions in the ODP and PDP

	ODP	PDP Decisions Version	My assessment
Earthworks	Means modification of land surfaces by blading, contouring, ripping, moving, removing, placing or replacing soil or earth, or by excavation, or by cutting or filling operations, and excludes the cultivation of land, the digging of holes for the erection of posts, the construction of fence lines, or the planting of trees, landscaped area and gardens, and the stockpiling of coal.	Means the alteration or disturbance of land, including by moving, removing, placing, blading, cutting, contouring, filling or excavation of earth (or any matter constituting the land including soil, clay, sand and rock); but excludes gardening, cultivation, and disturbance of land for the installation of fence posts. NB Cultivation : Means the alteration or disturbance of land (or any matter constituting the land including soil, clay, sand and rock), for the purpose of sowing, growing or harvesting of pasture or crops.	Note, this may include hand dug holes for planting native trees, as they do not meet the definition of cultivation. Gardening is not defined in the PDP. ODP does not apply to planting in the SNA. Effects are negligible within the SNA.
Indigenous Vegetation	Means vegetation that occurs naturally in New Zealand or arrived in New Zealand without human assistance. For the purposes of this plan, domestic or ornamental / landscaping planting, or planted shelterbelts, comprised of indigenous species are not included.	Means vegetation that occurs naturally in New Zealand or arrived in New Zealand without human assistance. It excludes domestic or ornamental / landscaping planting or planted shelter belts comprising indigenous species.	Includes indigenous wetland vegetation. Includes self-established indigenous vegetation that is understory to exotic species.
Vegetation clearance	Includes the burning, cutting, crushing, spraying and removal of all forms of vegetation including indigenous and exotic plants. It does not include that relating to routine cultivation or grazing, pruning or waste thinning operations or canopy damage	Means the modification, burning, cutting, crushing, spraying and removal by physical, mechanical, chemical or other means, of all forms of vegetation, including indigenous, and may include exotic plants. It does not include vegetation clearance relating to routine cultivation or grazing.	Indigenous understory beneath the redwood trees are excluded from vegetation clearance rules in the OPD but not in the PDP.

	resulting from forest harvest activities. In relation to indigenous vegetation and habitat clearance rules, it does not include clearing areas where indigenous species make up less than 50% of the vegetation canopy.		Includes spraying of indigenous swamp millet and control of grey willow in the compensation area.
Biodiversity offsetting	Not defined.	Biodiversity offsets are measurable conservation outcomes resulting from actions designed to compensate for significant residual adverse biodiversity effects arising from project development after appropriate prevention and mitigation measures have been taken.	See notes in Table 2 regarding offsets.

Table 2: Assessment of matters for discretion under RD rules in the PDP

Matters for discretion	Assessment
(a) The extent to which the clearance will result in the fragmentation and isolation of indigenous ecosystems and habitats;	The affected areas are in blind gully headwaters and are not currently corridors to other natural areas upstream, but are buffers to waterways that flow downstream to other natural areas. However, ephemeral streams within the fill areas will also be filled.
(b) The extent to which the clearance will result in loss, damage or disruption to ecological processes, functions and ecological integrity, including ecosystem services;	Clearance of riparian vegetation will have adverse effects on functioning of adjacent ephemeral streams, however the streams will also be filled. Ecosystem services such as carbon uptake and habitat provision will be compensated for by offsite planting of indigenous vegetation.
(c) The cumulative effects of the vegetation clearance;	An EMP proposes riparian planting as an offsite mitigation for the loss of indigenous vegetation. As the quantum of offset is greater than the area lost there will be little cumulative loss of vegetation and a likely net benefit for terrestrial species. The affected vegetation is young regenerating, so replanted vegetation (well-managed with weed control) will achieve a similar age within 20 or so years.
(d) The extent to which the clearance affects Tangata Whenua relationships with indigenous biodiversity on the site;	This can only be assessed by the relevant Tangata Whenua.
(e) The extent to which the indigenous biodiversity contributes to natural character and landscape values, including in areas of outstanding natural character, outstanding natural features, outstanding natural landscapes and significant amenity landscapes	The areas to be cleared are small and inside incised valleys, surrounded by exotic vegetation. Their contribution to the natural character and visual landscape of the area is minimal.
(f) The extent to which adverse effects have been avoided, remedied, mitigated or if this is unable to be achieved, the extent of offsetting on significant residual adverse effects.	Direct effects on an SNA have been avoided by choosing areas outside the SNA for the fill activities. The EMP proposes riparian planting adjacent to and just downstream of an SNA as an offsite mitigation for the loss of indigenous vegetation. The proposed offsetting is adequate for adverse effects on terrestrial vegetation and habitat for terrestrial species. It is not adequate for the anticipate loss of wetland habitat. A suitable compensation is required to offset the proposed wetland loss. Works to date have been undertaken to offset unconsented losses in FA3 that occurred prior to the application being lodged.

6 Fill Area 3 and compensation works as at 7 June 2022

Fill Area 3 is described in the EIA¹¹ (based on field survey 25 to 29 June 2019) as comprising “4.2 ha within a grazed paddock, a large part of which appears to be relatively regularly inundated.”

Much of Fill Area 3 was described in 2019 as dominated by a native wetland rush, Edgar’s rush (*Juncus edgarii*), interspersed with patches of rank grass. The site was drained in June 2020. That was prior to notification of the Proposed Waikato District Plan decisions version on Monday 17 January 2022, however under the Operative Waikato District Plan rule 25.43A

¹¹ Ecological Impact Assessment. Boffa Miskell Ltd 14 November 2019

the clearance of indigenous vegetation would have required restricted discretionary consent from Waikato District Council (WDC), unless the WDC certified that the vegetation cleared was not significant indigenous vegetation or significant habitat of indigenous fauna¹².

Mitigation activities to offset the damage to the wetland in FA3 were proposed to the Waikato Regional Council (Paua Planning letter to Emma Cowan, Waikato Regional Council, 18 August 2020). They comprised:

1. Fencing around entire compensation area, c4 hectares: see Figure 1 in Wildlands Report 'Ecological Management Plan for the proposed Compensation Site at Gleeson Quarry, Huntly' dated May 2020.
2. Complete initial pest plant control in Management Units 2a, 3d and 6: see Figure 2 in Wildlands Report 'Ecological Management Plan for the proposed Compensation Site at Gleeson Quarry, Huntly' dated May 2020.
3. Planting of Areas 9 and 10 as illustrated on Figure 4 in Wildlands Report 'Ecological Management Plan for the proposed Compensation Site at Gleeson Quarry, Huntly' dated May 2020.

During our site visit on 7 June 2022 a team of Envoco staff (who introduced themselves to us) were planting the gully of Compensation Area 4. We saw:

1. A recently installed fence encircling the gully (some areas of exposed soil on the fence benches were not yet grassed).
2. Defoliated grey willow trees in MUs 2a and 2b¹³ of the Wildlands EMP.
3. No pest plants in MU 3d.
4. Desiccated native swamp millet in MU 6.
5. Carex sedges and other native species had been planted in the wetland (under dead grey willow in Planting Area 10 and among desiccated native swamp millet in Planting Area 9).
6. Several predator traps had been installed.
7. Planting on side slopes and additional plants stacked presumably for subsequent planting.

The first five of these activities match the mitigation package offered for the unconsented drainage works in Fill Area 3¹⁴. As such, I discount those five activities from my assessment of the appropriateness of compensation for future adverse ecological effects in Fill Areas 2 and 4, and for any remaining areas of wetland within Fill Area 3 as of June 2022.

During our 7 June 2022 visit to Compensation Area 4, an area of indigenous swamp millet (c2000 m²) in Planting Area 9/ MU 6 was yellow-brown (see Figure 3 showing a close up photograph of the seed head confirming my species identification).

Swamp millet can brown off after suffering from summer drought (personal observation), however Figure 20 in the Envoco 2022 Ecological Mitigation Monitoring Report shows this area was green in March of 2022. The Envoco report states that an area of what they describe as exotic Mercer grass was sprayed with a spray gun using 100 g/litre haloxyfop-P present as haloxyfop-P-methyl (see Figure 4). Blanket spraying of this area was recommended in the Ecological Management Plan (EMP, 2020 s7.2.7 and s9.3) which also stated the grass was exotic Mercer grass. It is not feasible for that area to have been Mercer

¹² Note regional consent was also likely to be required.

¹³ Note this is mapped as MU 2 on page 16 of the EMP, I am treating that as MU 2b.

¹⁴ Letter from Kate Madsen, Paua Planning to Emma Cowan, Waikato Regional Council, 18 August 2020

grass in March 2022, sprayed with a herbicide with a 12-week withholding period, and then self-established as a native grass sward, grown to excess of 50 cm height, flowered, and then browned off by 7 June 2022.

Therefore, I believe it was indigenous grass that was sprayed between March 2022 and 7 June 2022, based on Figure 20 of the Envoco report. This was later confirmed by Envoco¹⁵. This would have required a consent from Waikato District Council for clearance of indigenous vegetation outside of a SNA, unless the council had certified it to be not significant prior to spraying. It would also require consent under the NES Freshwater released in September 2020. It can certainly not be considered a compensatory activity for any wetland loss from the fill areas.

7 Ecological mitigation/biodiversity offsetting

The proposed activities will result in the loss of 3327 m² of indigenous vegetation in the form of regenerating scrub, naturally established understory vegetation below exotic conifers¹⁶. In addition, it will result in the loss of at least 1869 m² of wetland habitat. See Appendix 3 for a more detailed analysis. The stated losses cannot be avoided or remedied, other than by declining consent, and therefore are subject to offsetting under the effects hierarchy.

Table 3 presents a summary of the proposed compensation works and my assessment of their appropriateness.

Boffa Miskell (14 November 2019) recommend the following actions to mitigate the ecological impacts of the activities:

- *Undertake avifauna and long-tailed bat surveys enabling a completed comprehensive assessment of effects that will facilitate determination of appropriate management;*
- *Preparation and implementation of a Fauna Management Plan which outlines strategies to avoid, minimise, remedy or mitigate any potential adverse effects on native fauna;*
- *Creating wetland habitat at a ratio of 1:1 to mitigate for the loss of 1530 m² total wetland area; and*
- *Implementation of an appropriate fill management as well as erosion and sediment control plan to avoid any discharge effects on downstream freshwater receiving environments*

My understanding is that:

- Avifauna and lizard surveys have not been conducted, but a lizard management plan is offered by the applicant. Bird monitoring in the nearby compensation area detected only common native species and exotic species (Envoco 2022).
- A long-tailed bat survey has been completed and a Bat Management Plan (Wildland Consultants 2020) provided. With some minor amendments, the proposals in the Bat Management Plan will adequately avoid and mitigate adverse effects on long-tailed bats.
- A lizard management plan has not been prepared but could be included as a condition of consent.

¹⁵ Response to WDC Memo Re: Gleeson and Cox Fill Consent Application: Wetland Ecological Effects. Karen Denyer, July 2022. Response prepared by Ohara McLennan (Ecologist, Envoco Ltd) for Kate Madsen, Paua Planning Ltd. "Although swamp millet was removed,..."

¹⁶ Envoco September 2022, Quantification of indigenous terrestrial vegetation in Fill Areas 2 and 4

- An Ecological Management Plan for the Proposed Compensation area was prepared by Wildland Consultants (May 2020).
- Several of the works proposed in the EMP had already been implemented prior to consent application being lodged on 14 April 2022, and many of those had been offered as compensation for unconsented drainage of FA3. Additional of the activities proposed in the EMP had been completed as of 7 June 2022. With the exception of mammalian predator control, riparian/ terrestrial planting and ongoing weed control, those completed works match those proposed by Paua Planning to mitigate the premature drainage of wetland in Fill Area 3.

Having discounted the activities conducted to mitigate the unconsented wetland drainage in Fill Area 3, the following activities remain on the table to compensate all proposed adverse terrestrial and wetland ecological effects other than bats (covered by a separate management plan):

1. Ongoing weed control in the compensation gully.
2. Ongoing pest animal control in the compensation gully.
3. Terrestrial/riparian planting of approximately 1.2 hectares.

7.1 Terrestrial vegetation, bird and lizard habitat

Approximately 12,109 m² of dryland planting is offered in the compensation zone to offset the 3327.5 m² loss of riparian vegetation and terrestrial habitat from Fill Areas 2 and 4. The quantum of gain to loss is at least 3:1, and I am comfortable that the loss of second growth terrestrial indigenous vegetation (much of it weed-infested) and associated avian and lizard habitat, as a result of the proposed activity is adequately offset by planting and ongoing pest control in the Compensation Area. Note that active search and translocation of lizards may be required under the Wildlife Act. My point here is that the loss of *habitat* for these species is adequately addressed resulting in no net loss of terrestrial vegetation and habitat.

7.2 Wetland mitigation

Within the Fill Areas 2 and 4 at least 1869 m² of constructed but ecologically significant¹⁷ wetland are expected to be destroyed. After discounting activities conducted to mitigate unconsented works in Fill Area 3, there is little ecological gain to be made in terms of extent of indigenous wetland vegetation, open water habitat, or short-fin eel habitat within the Compensation Area.

Even prior to the works conducted to mitigate the unconsented loss of wetland from FA3, there was little to be gained in terms of wetland compensation from the EMP proposal. The EMP states, and I concur, that *“it will be difficult to demonstrate an increase in ecological values by restoring the indigenous-dominated wetland habitats.”*

A 2000 m² area that was described in the EMP as exotic grassland dominated by Mercer grass (*Paspalum distichum*)¹⁸ was, on 7 June 2022, and indigenous-dominated wetland habitat, comprising native swamp millet (*Isachne globosa*)¹⁹ (see Figure 3). I agree with Dr

¹⁷ Per the EIA, Boffa Miskell 2019.

¹⁸ Vegetation type 10/ MU 6/ PA 9, see map on page 5 and description on page 13 of the EMP.

¹⁹ During the site visit on 7 June 2022, I found that area that the EMP refers to as Vegetation Type 10/ Management Unit 6/Planting Area 9 described as comprising 70% exotic Mercer grass, was 90% native swamp millet, some of it over 1 m in height, with sedges interplanted across the entire swamp millet zone. It seems unlikely that an almost solid cover of swamp millet has replaced an almost solid cover

Mackay that planting native sedges in an existing area of *indigenous-dominated wetland habitat* will not comprise an increase in ecological values, and will not offset the loss of wetland vegetation and open water habitat from any of the fill areas.

Ecologists engaged by the applicant accept that they cleared native swamp millet vegetation (presumably without consent) from the compensation site²⁰ in order to replace that existing native wetland vegetation with species that will be lost from FA2 and FA4, stating in a memo from Ohara McLennan to Kate Madsen Paua Planning (no date) that:

“Sedgeland/open water habitat was created in the compensation area, this is like-for-like mitigation for the fill areas, and is also similar to upstream naturally-occurring [sic] wetland habitat within the compensation area. Although swamp millet was removed, the restoration created similar habitat to what will be removed in fill areas..”

- Firstly, those works were offered by the applicant to offset unconsented drainage of FA3, and are therefore not relevant to the current application to destroy significant wetlands in FA2 and FA4.
- Secondly, no open water habitat had been created as of my site visit 7 June 2022.
- Thirdly, clearing an existing area of native wetland vegetation (without consent) and replanting it in a different type of wetland vegetation as an offset is not ecological best practice and is not consistent with the biodiversity offset requirements in the Waikato District PDP. Appendix 3 of the PDP requires that residual adverse effects be off set in a manner consistent with eleven principles including that: *(7) The values to be lost through the activity to which the offset applies are counterbalanced by the proposed offsetting activity which is at least commensurate with the residual adverse effects on indigenous biodiversity, so that the overall result is no net loss.”*

The proposed activities will lead to a net loss of wetland extent because:

- a) The compensation fencing, wetland planting and wetland weed control were offered to mitigate in full the unconsented losses in FA3, and therefore cannot be simultaneously counted towards losses in FA2 and 4, and
- b) the unconsented loss of native swamp millet in the compensation area is an additional loss for which no compensation has been offered.

There are two opportunities I consider can be appropriate offsets.

1. A small area of exotic wetland exists near the confluence of the two upper gullies in the compensation area. This was approximately 100 m² and dominated by exotic Yorkshire fog (*Holcus lanatus*) and blue sweet grass (*Glyceria declinata*). It could be restored to indigenous wetland as a partial offset contribution.
2. Further, there may be opportunities to create offset wetlands in association with the proposed sediment ponds within the fill gullies. These could be planted above,

of Mercer grass since the Wildlands survey in May 2020, or since the area was sprayed by Envoco (March to June 2022). It is possible that the grass was mis-identified by Wildland Consultants during their site visit because it was grazed low to the ground, removing the readily distinguishable seed heads.

²⁰ ECOLOGICAL RESPONSE TO WRC OCTOBER 2022, Envoco

below and around the pond edges in a manner that allows digger access for regular mechanical sediment removal without affecting the plants.

Table 3: Assessment of proposed compensation works

Compensation proposal	Details	Area_m ²	Compensates	Notes	Determination
Bat Management Plan	Creation of bat reserve with artificial roosts and monitoring	n/a	Loss of bat habitat	Wildlands BMP 2022	Adequate compensation with conditions to ensure best practice management and legal protection of the constructed roost site.
Pest management control (EMP)	Predator control for at least 6 years	c4 hectares	Lizard /bird direct and indirect mortality from habitat clearance and loss	Lizard monitoring and salvage may be required under the Wildlife Mgt Act	Adequate compensation for avian/lizard habitat loss.
Area 1-8 planting (EMP)	Terrestrial planting, stated as buffer to protect wetland	7084	Loss of 3327 m ² of indigenous terrestrial vegetation Loss of lizard/ bird habitat	Works may have been completed prior to the application being processed.	Adequate compensation for loss of terrestrial and riparian vegetation and lizard/bird habitat. Increases total ecosystem quality / diversity in the compensation area, but <u>does not directly offset wetland loss from FA2 and 4 in like for like manner.</u>
Weed control –MUs 1 a-d, 3 a-e, 4 (EMP)	Terrestrial weed control	ns	Loss of indigenous terrestrial vegetation, loss of lizard/bird habitat	Necessary for the successful establishment of planted vegetation and to enhance the existing terrestrial vegetation.	Adequate contribution to loss of indigenous terrestrial vegetation and to improve successful establishment of planted terrestrial areas.
Weed control MU5 (EMP)	Greater bindweed control in <i>Carex</i> MU 5.	ns	Small contribution to wetland loss compensation where exotic wetland vegetation is replaced with natives as of 2022	I did not see greater bindweed in this location – perhaps already cleared? - but the upper wetland has a 100 m ² weedy area that could be included as a compensation site.	Potential compensation site of 100 m ² extent. 100 m ² area of exotic wetland in the compensation site could be converted to indigenous wetland as an offset. It is dominated by <i>Holcus lanatus</i> and <i>Glyceria declinata</i> . That would create new indigenous wetland habitat in an area of exotic wetland habitat. It is not mapped separately in the EMP.

Compensation proposal	Details	Area_m ²	Compensates	Notes	Determination
Weed control – MU 2a, 3d, 6 (EMP)	Pest plant control includes grey willow, privet, gorse etc	ns	Unconsented wetland drainage in FA3 – letter from Paua Planning, 18/8/2020	Offered by the applicant as mitigation for unconsented works. Also included Mercer grass however the area mapped as Mercer grass was native swamp millet when planted in 2022	Not compensation. Activity was mitigation for unconsented works in FA3 prior to the application being lodged. Some may have been in breach of 500 m ² max clearance rule for wetland restoration under the NES Freshwater Management.
Area 9 planting (EMP)	Planting in an indigenous wetland	1500	Unconsented wetland drainage in FA3 – letter from Paua Planning, 18/8/2020	Area was not exotic grass as described in the EMP at time of planting. It was indigenous wetland vegetation that has been sprayed without consent.	Not compensation. Activity does not offset wetland loss. Site was already indigenous wetland vegetation and should not have been sprayed with herbicide. Unconsented clearance of native swamp millet to plant sedges was likely in breach of the NES rules on wetland vegetation clearance.
Area 10 planting/ weed control (EMP)	Planting	900	Unconsented wetland drainage in FA3 – letter from Paua Planning, 18/8/2020	Offered by the applicant as mitigation for unconsented works in FA3	Not compensation for loss of wetland in FA2 and FA4. Activity was mitigation for unconsented works in FA3 prior to the application being lodged.
Fencing (EMP)	Fencing entire compensation area	c4 hectares	Unconsented wetland drainage in FA3– letter from Paua Planning, 18/8/2020	Offered by the applicant as mitigation for unconsented works in FA3	Not compensation for loss of wetland in FA2 and FA4. This activity was mitigation for unconsented works in FA3 prior to the application being lodged.
Ongoing weed control (EMP)	Pest plant control for at least 6 years	c4 hectares	Loss of terrestrial and riparian vegetation.	Maintenance of compensation planting to allow it to establish successfully.	Activity to ensure successful establishment of compensation planting.

7.3 Legal protection of compensation areas

The EMP states that the *“proposed compensation site has been identified as a Significant Natural Area (SNA_16743) and therefore has legal protection under the Waikato Regional Council Regional Policy Statement 2018.”*

I disagree with this statement for two reasons:

1. The wetland areas are not fully within the SNA in the WDP (see Figure 2).
2. Areas of vegetation within SNA's are not absolutely protected in perpetuity. Under the Proposed Waikato District Plan, certain vegetation clearance activities within SNAs are permitted or controlled, including clearance for firewood, building, access, parking and manoeuvring areas. Beyond that any clearance can occur subject to a discretionary consent – and therefore the SNA has no greater legal protection than the wetland areas proposed for infilling for which discretionary consent is being sought.

A condition of consent can be included to secure legal protection via covenant or similar tool of the compensation site.

7.4 Mitigation summary

- The dryland planting in the compensation area will adequately offset the loss, and result in no net loss, of terrestrial vegetation and habitat.
- The Bat Compensation Plan, with minor amendments, will adequately offset the loss of long-tailed bat habitat. I recommend for avoidance of doubt that a condition of consent be included to ensure the BMP is completed in accordance with best management practice for management of artificial bat roosts²¹.
- A lizard management plan should be required as condition of consent to search for and salvage or otherwise provide for copper skinks and any other native lizards.
- None of the proposals in the EMP will result in creation of additional areas of indigenous wetland and open water to replace wetland habitats that will be lost from fill areas 2 and 4 and residual wetland in FA3. There are opportunities for this in the compensation area (up to 100 m²) and potentially in association with the proposed sediment ponds. Spraying and planting sedges in an existing area of swamp millet is not appropriate mitigation, and this, along with fencing and some weed control was already offered as compensation for loss of much of the FA3 wetland.
- After discounting the works already undertaken or offered to compensate the unconsented loss of Fill Area 3, the residual proposed compensation activities to offset wetland loss comprise 700 m² of grey willow control (in MU2, which has already occurred), and ongoing weed control and predator trapping for an unstated

²¹ Copy available at <https://ftp.doc.govt.nz/public/folder/J8y-HgKTuEmoYMZtafa6nA/bat-recovery/Bat%20recovery%20group%20advice%20notes/doc-artificial-bat-roost-advisory-note-2021.pdf>

duration (minimum 6 years). This is not commensurate with the quantum and type of wetland loss anticipated in the fill areas.

- The proposed compensation activities will not be absolutely legally protected in perpetuity via the Proposed Waikato District Plan, however a suitable condition of consent can be included to ensure legal protection of all compensation sites.

8 Ecological monitoring

- The EIA had no reference to ecological monitoring other than success monitoring for released lizards (if any).
- The EMP (Wildland Consultants 2020) includes reference to trap catch/bait take monitoring of pests, but no monitoring for residual pests (including bait/trap shy individuals), nor any monitoring of native fauna species to assess the benefits of the restoration activities. The EMP includes requirements to monitor and report on weed control operations and effectiveness.
- The Bat Management Plan includes a period of 15 years monitoring of the effectiveness of artificial bat roosts, but should also include checks on the effectiveness of the predator bands protecting them.
- The Envoco report 2022 reports on monitoring activities that have been undertaken to date and some proposed activities, including for birds and macroinvertebrates, but with no timelines. Note that the proposed use of leg-hold traps is not advisable so close to residences where domestic pets may be at risk (permission must be sought from all properties within 150 of the traps).
- The Envoco Pest Management Plan offers a clear methodology and timeline for animal pest monitoring in the compensation area.
- These multiple proposals are a good starting point for a clear and comprehensive Ecological Monitoring Plan that should be developed and implemented for the compensation site.

If consent is granted it is recommended that a single Compensation Area Ecological Monitoring Plan be prepared and implemented for terrestrial and wetland monitoring, with clear timelines. Annual reports should be sent to the relevant Council outlining outcomes and outputs of activities and monitoring results, such as:

1. Kill trap and bait take records.
2. Residual pest records, using industry best practices such as chew card and tracking tunnel detection devices for at least one round of predator detection per year.
3. Weed control methods as proposed in the EMP.
4. Planting survival records for at least three years and annual photo-points.
5. Area of new wetland created.
6. Area of new terrestrial indigenous vegetation created.

9 Recommendations

1. A wetland compensation plan be prepared and implemented that mitigates wetland loss in FA2, FA4 and residual wetland in FA3 on a like-for-like basis as proposed in the EIA, i.e. the loss of wetland area be compensated by the creation of an area of indigenous vegetation and open area wetland habitat that is the same or larger extent elsewhere. Said plan should be approved by a suitably qualified ecologist for the council.
2. Include a condition of consent that a combined terrestrial and wetland ecological monitoring plan be developed and implemented for the compensation area, including clear methodology, location of monitoring devices/plots and a timeline of monitoring activities including how many years each activity will be conducted for. There should be regular (at least annual) reports sent to Council to be assessed by a suitably qualified ecologist. The Compensation Area Ecological Monitoring Plan should be approved by a suitably qualified ecologist for the council.
3. Include a condition of consent to seek formal legal protection for all compensation areas subject to the application, including the bat reserve.
4. Include a condition requiring lizard site-specific survey and salvage prior to and during habitat removal, to minimise mortality to any resident population. A suitable relocation site should be identified.
5. Incorporate implementation of the Bat Management Plan as a condition of consent with the requirement that it be compliant with best management practice for artificial roost management as outlined in: *New Zealand Bat Recovery Group Advice Note – The Use of Artificial Bat Roosts. 18 October 2021*. In particular, specify that acoustic surveys be conducted in the appropriate season, that predator exclusion bands surrounding artificial roosts be inspected annually and adjusted as needed for 15 years, and that the bat reserve be subject to appropriate legal protection in perpetuity.



Karen Denyer
Director and Principal Ecologist
Papawera

Appendix 1: Relevant district plan policies

Operative District plan

2.2.6

Subdivision, use and development should be located and designed to avoid, remedy or mitigate adverse effects on indigenous biodiversity. This will include adverse effects on the ecological functioning and values of significant indigenous vegetation and significant habitats of indigenous fauna, in-stream values, riparian margins and gullies.

2.2.8

The features and values that characterise areas of indigenous vegetation and habitats of indigenous fauna and that contribute to biodiversity should be protected from inappropriate subdivision, use and development.

2.2.7

When avoiding, remedying or mitigating adverse effects on indigenous biodiversity, regard should be had to:

1. the need for species to continue to have access to their required range of food sources and habitats during their life cycle
 2. the need for species to have access to refuges from predators and disturbances
 3. the maintenance of natural isolation
 4. the need to prevent invasion by exotic species
 5. the need to maintain vegetation structure, such as a continuous closed-forest canopy and under-storey, and the compactness of an area's shape to limit edge effects such as wind damage
 6. the need to replace or restore habitats
 7. retaining and restoring the natural character and landscape values of the area
- (ga) maintenance and enhancement of ecological corridors and buffer areas.

Proposed District Plan_Decisions Version

The following apply to activities in SNAs

ECO-P2 Management hierarchy.

(1) Recognise and protect the values of indigenous biodiversity within Significant Natural Areas by:

- (a) Avoiding adverse effects of vegetation clearance and the disturbance of habitats in the first instance as far as practicable;
- (b) Remedying and/or mitigating any effects that cannot be avoided; then
- (c) After remediation or mitigation has been undertaken, offset any more than minor residual adverse effects in accordance with Policy ECO-P3.
- (d) If offsetting of any significant residual adverse effects in accordance with Policy ECO-P3 is not feasible then environmental compensation may be considered.

ECO-P3 Biodiversity offsetting.

(1) Allow biodiversity offsetting where an activity will result in more than minor residual adverse effects on a Significant Natural Area, provided that a biodiversity offset will only

be considered appropriate where adverse effects have been avoided, to the extent practicable, and then remedied or mitigated in accordance with the hierarchy established in Policy ECO-P2; and

- (a) The biodiversity offset is consistent with the framework detailed in APP3 – Biodiversity offsetting; and
- (b) The biodiversity offset can achieve no net loss, and preferably a net gain, of indigenous biodiversity:
 - (i) Preferably in the affected area of Significant Natural Area; or
 - (ii) Where that is not practicable, in the ecological district in which the affected area of Significant Natural Area is located; and
- (c) Recognising that there are limits to the appropriate use of biodiversity offsetting, including because of the irreplaceability or vulnerability of the biodiversity affected.

The following apply to activities outside of SNAs

ECO-P9 Management hierarchy.

- (1) Recognise and protect indigenous biodiversity outside Significant Natural Areas using the following hierarchy by:
 - (a) Avoiding the significant adverse effects of vegetation clearance and the disturbance of habitats in the first instance;
 - (b) Remedying any effects that cannot be avoided; then
 - (c) Mitigating any effects that cannot be remedied; and
 - (d) After remediation or mitigation has been undertaken, offset any significant residual adverse effects in accordance with Policy ECO-P10.

ECO-P10 Biodiversity offsetting.

- (1) Allow for a biodiversity offset to be offered by a resource consent applicant where:
 - (a) An activity will result in significant residual adverse effects to indigenous vegetation or habitat outside a Significant Natural Area; and
 - (b) The biodiversity offset is consistent with the framework detailed in APP3 – Biodiversity offsetting.

Appendix 2: District rule assessment

A: Proposed DP Decisions Version

Rule	Activity	Assessment	Determination
ECO-R1 Permitted	Earthworks for conservation activities, water reticulation for farming purposes or the maintenance of existing tracks, fences or drains within a Significant Natural Area provided they are not within a kauri root zone.	Relevant to the compensation area for offsite mitigation	Does not apply, see ECO-R3, earthworks are for purposes other than those stated.
ECO-R3 Restricted discretionary	Earthworks in a Significant Natural Area for purposes other than the maintenance of existing tracks, fences or drains.	Earthworks not needed within the bounds of the SNA other than for planting natives. Fencing, planting and weed control has already been undertaken but did not involve earthworks inside the SNA.	Minor earthworks in the SNA compensation area for planting natives. Insignificant effects.
ECO-R4 to ECO-R10	Vegetation clearance within a Significant Natural Area	No vegetation clearance proposed within the SNA	Does not apply
ECO-R11 Restricted discretionary activity	Vegetation clearance outside a Significant Natural Area.	Clearance of riparian vegetation	Clearance of 3327.5 m ² of indigenous scrub and trees, including native understory in the fill area require R_DIS consent.
ECO-R12	Vegetation clearance outside a Significant Natural Area on Maaori Freehold Land and Maaori Customary Land	Land is not this tenure	Does not apply
ECO-R13	Outside a Significant Natural Area, indigenous vegetation clearance associated with gardening.	Activity not for gardening	Does not apply
ECO-R14 Permitted	Vegetation clearance of non-indigenous species outside a Significant Natural Area.	Clearance within fill areas of non-native species. The fill area includes areas of exotic trees with indigenous species understory.	Consent not required to clear non-indigenous species. Clearance of indigenous species under exotic trees outside an SNA requires R_DIS consent. Applies to the understory of the redwood trees or other exotic trees.
ECO-R15 Permitted	Clearance of manuka or kanuka outside a Significant Natural Area to maintain productive pasture or for domestic firewood purposes	These species are among areas of secondary scrub that will be cleared to create a fill site. Purpose is not to maintain productive	Permitted activity status does not apply – not for pasture or firewood. Clearance of manuka and kanuka requires R_DIS consent.

		pasture or for domestic firewood purposes.	
ECO-R16 Restricted discretionary	Indigenous vegetation clearance outside a Significant Natural Area for any reason not specified in Standards ECO-R11 to ECO-R15	Applies to all indigenous vegetation clearance in the fill area – no permitted activities apply	Clearance of indigenous scrub and self-established indigenous understory of exotic trees requires RDIS consent.
INF-R9 Restricted discretionary	Removal of vegetation or trees associated with infrastructure, is a restricted discretionary activity.	May apply to some areas of clearance for access ways	R_DIS likely applies to at least some of the vegetation to be cleared, can be bundled with the ECO_R16 consent requirement.

B: Operative DP

PERMITTED	RESOURCE CONSENT	Activity triggering need for consent and assessment
25.43A <u>Indigenous vegetation</u> clearance		
25.43A.1 <u>Vegetation clearance</u> of <u>indigenous vegetation</u> or habitat of indigenous fauna is a permitted activity if: <ul style="list-style-type: none"> (i) it is for the following purposes managing, maintaining or harvesting existing production forests including under-storey clearance and fire break maintenance or fire risk management, or (ii) replanting a production forest or establishing a new land use within 5 years of production forest harvesting on the site, or (iii) harvesting indigenous timber under a Sustainable Management Plan or Permit (under the Forests Act 1949) or (iv) removing vegetation that endangers human life or existing buildings or structures, or poses a risk to the integrity of, the safe use of, or access to existing network utilities, or (v) maintaining or reinstating productive pasture, tracks and fences through the removal of manuka and / or kanuka and / or treeferns that are more than 10m from a water body and less than 15 years old or less than 5m in height and any under-storey under such manuka or kanuka or treeferns growing on land that was previously in productive use, or (vi) stream or river crossings or the formation of farm drains [2], or (vii) a <u>building platform</u> for a permitted or approved building, or structure(s), or access or gathering of plants in accordance with Maori custom and values up to 3,000m² or 1% of <u>contiguous indigenous vegetation</u> or habitat of indigenous fauna, whichever is the lesser, per <u>contiguous</u> area per site within any 3-year period, or (viii) conservation fencing to exclude stock or pests, or (b) the Council certifies that the vegetation to be cleared is not significant <u>indigenous vegetation</u> or significant habitat of indigenous fauna.[3] 	25.43A.2 Any activity that does not comply with a condition for a permitted activity is a restricted discretionary activity. Discretion restricted to: <ul style="list-style-type: none"> • effects on landscape values • effects on ecological values • effects on significant <u>indigenous vegetation</u> and habitat • effects on amenity values • effects on natural character of water bodies and the coastal environment • remediation or mitigation measures • effects on social, cultural and economic wellbeing • relocation of species. 	Clearance of vegetation within the fill areas: (i)(iii)(iv) do not apply – activity is for land/clean fill (ii) does not apply - the pines were harvested between Mar and Sept 2015. The application was received outside of the 5-year period to clear indigenous vegetation for an alternative land use Triggers R_DIS activity status. See assessment in Table 1. Does not apply to the indigenous vegetation under the redwood trees (see ODP definition of vegetation clearance).

Appendix 3: Assessment of Effects

The EIA prepared by Boffa Miskell 14 November 2019 states that.

Within the footprint of the proposed new land-use, areas of gorse-dominated or native broadleaved early successional scrub, exotic forest/treeland, wetland vegetation and pasture grassland were identified.

The proposed new fill areas provide a range of different habitats that may be utilised by a variety of native fauna species. This includes but is not limited to; herpetofauna species such as copper skink; Threatened or At Risk bird species utilising wetland or ungrazed grassland habitat features on the Site; the Threatened – Nationally Critical long-tailed bat likely utilising vegetation on the Site for commuting, foraging and/or roosting; and shortfin eels that have been observed in the three identified wetland areas.

The proposed change in land-use will result in the staged removal of:

- *Large areas of gorse-dominated early successional scrub;*
- *Large areas of pasture grassland;*
- *A notable proportion of native broad-leaved early successional scrub including the occasional large native tree;*
- *Two small areas of exotic forest/treeland;*
- *1,530 m² wetland habitat present on site;*
- *525 m ephemeral waterway; and*
- *90 m intermittent waterway.*

The habitat loss outlined above will result in the loss of associated habitat for herpetofauna, bird, bat and freshwater fauna habitat.

The EIA concludes (s 5.4) that “Native and exotic forest stands and wetland features within the site have been assessed as of high or very high potential value for herpetofauna, avifauna and bats under EIANZ guidelines (2018), and meet significance criteria outlined in the Waikato Operative District Plan significance criteria.” But recommend fauna surveys to “provide a more accurate assessment of the vegetation habitat value and significance.”

With the exception of lack of bat and lizard fauna surveys (due to the seasonal constraints of the Boffa Miskell field assessments as expressed in the EIA), and quantification of the areas of terrestrial vegetation that will be cleared, the EIA methodology is sound and reasonably comprehensive. Their ecological assessment methods are well-recognised in New Zealand.

In general, I agree with the broad scale and list of impacts described in the EIA, however there should have been quantification of affected areas of vegetation in Table 15: Summary of potential effects on vegetation, to fairly assess compensation offered. This has been adequately provided in a later report by Envoco (September 2022).

Terrestrial vegetation

The EIA describes, but does not map or quantify, areas of terrestrial vegetation that will be impacted by the proposed activities. Most of the affected vegetation is dominated by exotic species, although some may have self-established indigenous vegetation beneath a canopy of exotic trees. The EIA also notes the presence of native broadleaved early successional

scrub, which includes scattered mature canopy trees (likely remnant trees around which indigenous scrub has regenerated). These occur within the footprints of Fill Areas 2 and 4.

A later assessment by Envoco (September 2022) assessed and quantified the extent of terrestrial vegetation expected to be impacted by the proposal. Having compared with recent aerial images I am comfortable that their assessment is robust and that the compensation works will result in no net loss of terrestrial vegetation and habitat.

Herpetofauna

Copper skink (*Oligosoma aeneum*) were considered by Boffa Miskell to be likely present in areas of Secondary Podocarp-broadleaf forest, although that habitat is not anticipated to be affected by this application, as the EIA notes in footnote 1 “*The proposal initially included an additional potential fill site, referred to as Site 1, which has now been omitted from the proposal.*” When the EIA was prepared this species was classified as Not Threatened. Their status was revised in 2021 to At Risk-Declining²². No lizard surveys were conducted for the EIA due to seasonal constraints, and they may be present within areas of terrestrial vegetation proposed for clearance. Given the increased threat status of this species, and requirements under the Wildlife Act 1953, pre-activity search and salvage is recommended, and may be legally required. Capture and relocation has been used in other developments in New Zealand, however there needs to be a suitable location to relocate the individuals to.

It is recommended that a lizard salvage and mitigation plan be developed and implemented as a condition of consent. This should include post-translocation monitoring and proposed predator control.

Native bats

A bat survey was conducted by Wildland Consultants Ltd in 2019 and confirmed the presence of Nationally Critical long-tailed bats (*Chalinolobus tuberculatus*) in Fill Area 4, and potentially present in other potentially affected areas.

A bat management plan was prepared by Wildland Consultants in February 2020. The BMP is detailed and sound, my only comments are relatively minor:

- a) it should specifically state in s5.4 that acoustic monitoring will take place in the appropriate season (1 October-30 April, inclusive).
- b) It should include in annual monitoring (s6.3), checks on, and if necessary adjustments to, the tree bands above and below the artificial roosts to account for tree girth growth and maintain predator exclusion.
- c) It should specify the mechanism that will be pursued to protect, in perpetuity, a bat reserve utilising exotic pines.

Avifauna

The EIA noted use of the site by common bird species, and that matches my casual observations during the site visit. Some habitat will be lost, but if clearance activities are

²² Rod Hitchmough, Ben Barr, Carey Knox, Marieke Lettink, Joanne M. Monks, Geoff B. Patterson, James T. Reardon, Dylan van Winkel, Jeremy Rolfe and Pascale Michel. 2021. Conservation status of New Zealand reptiles, 2021. NEW ZEALAND THREAT CLASSIFICATION SERIES 35. Published by Department of Conservation Te Papa Atawhai, Wellington.

conducted outside of breeding season, if possible, it is unlikely that any indigenous birds will be directly fatally affected, and the proposed offsite planting of terrestrial vegetation will compensate for their habitat loss.

The wetlands affected by the proposal are very small and exposed to predators, and therefore unlikely to be successful breeding sites for wetland avifauna. However, as with terrestrial vegetation clearance, wetland drainage and vegetation clearance activities should ideally take place outside of breeding season, as recommended by the EIA.

Two native species classified as “At Risk” were also observed. A New Zealand pipit was seen in the retired pasture at Fill Area 3 and a Pied Shag was observed flying overhead near Fill Area 2. These transient, non-resident, mobile species are unlikely to be directly impacted by the proposal, however as NZ pipit nest in long grass, they will be potentially at risk of fill operations on an ongoing basis during their nesting seasons, but not as a result of indigenous vegetation clearance.

Wetland vegetation and habitat

The EIA assesses the affected wetland condition as low, but does not provide a correct condition assessment because dominance of native vegetation appears to be based on the areas surrounding, not within, the wetland, for example Fill Area 3 the wetland vegetation condition is described as “*Canopy species replaced by harvested pine*”. The vegetation as described in the EIA for wetlands in Fill Areas 2, 3, and 4 are (or were prior to drainage) dominated by indigenous species, and therefore require restricted discretionary consent for their removal. They also support indigenous fauna including native short-fin eels and indigenous macroinvertebrates, e.g. *Chironomus zealandicus*, an endemic species.

The quantum of wetland loss reported in Boffa Miskell²³ in the footprint of Fill Areas 2, 3, and 4 (1530 m²) is less than that reportedly later mapped by Wildland Consultants (1869 m²)²⁴.

Table 4: Estimates of wetland habitat to be lost as a result of the proposed activities

	EIA Boffa Miskell 2019	Wildland Consultants (reported in Stantec 2021)
Fill Area 2	450 m ²	570 m ²
Fill Area 3	700 m ²	815 m ²
Fill Area 4	380 m ²	484 m ²
Total	1530 m²	1869 m²

In response to a s92 further information request, Kate Madsen (Paua Planning) clarified that the applicant is relying on the area mapped by Wildland Consultants and reported in the Stantec report, i.e. the higher figure of 1869 m² of wetland affected.

Neither figure in Table 3 includes two small areas of indigenous *Carex* sedgeland I saw in the field below the ponds in Fill Areas 2 and 4. These lay immediately downstream of the bunds

²³ Boffa Miskell, 2019EIA Appendix 6: Wetland condition features

²⁴ According to a report by Stantec to Gleeson Group, 24 December 2021

in FA2 and FA4. These are mentioned but not quantified in the EIA. They may lie within the footprint of the proposed sediment ponds.

An assessment by Envoco confirmed the existence of these small wetlands and described them as induced and of 150 and 80 m² respectively. In a memo titled " ECOLOGICAL RESPONSE TO WRC OCTOBER 2022" Envoco state that these wetlands will be outside of the works footprints. Revised Erosion & Sediment Control Plan documents show the sediment ponds orientated to sit beyond 10 m of a natural wetland boundary with regards the earthworks rule of the NES-FW s54 Non-complying activities.

Prior to unconsented drainage the area of wetland in FA3 would likely have been much greater than the 700 sqm reported by Boffa Miskell, as they state that a large part of the 4.2 hectare area²⁵ is relatively regularly inundated and dominated by the native wetland rush *Juncus edgarii*.²⁶ This area was, prior to drainage, likely to have met the WRC criterion for significant wetland, and also the RMA definition of wetland. It would be unlikely to meet the NES pasture exclusion if it was dominated by a native species as described in the EMP.

Given the pre-drainage description of Fill Area 3 the total area of wetland lost is likely to be larger than 1869 sqm.

²⁵ 700 sqm is only 1.6% of 42,000 sqm (4.2 ha)

²⁶ EMP, page 11 "Fill Area 3 covers 4.2 ha within a grazed paddock, a large part of which appears to be relatively regularly inundated. A wetland surrounding an area of shallow open water is located near the middle of the fill area. Edgar's rush (a native rush species) dominates much the flat paddock, interspersed with patches of rank grass (evidently not recently grazed, but extensively pugged). Wetland vegetation comprises *Isolepis prolifera* and Edgar's rush swards surrounding the area of open water."

Appendix 4: Figures



Figure 1: Self-established indigenous vegetation beneath the exotic redwood canopy



Figure 2: Wetland planting and weed control zones in Compensation Area 4 (left, from EMP) are outside the boundaries of the Waikato District Plan SNA (right, supplied by Julia Masters, Kinetic, 13 June 2022)



Figure 3: Native swamp millet in Compensation Area 4, Planting Zone 9, photos taken by Karen Denyer, 7 June 2022



Figure 20: Fencing progress around the wetland, looking north-west. March 2022.



Figure 15: Results of willow poisoning and spraying of Mercer grass in the wetland.

Figure 4: Native swamp millet in Compensation Area 4, Planting Zone 9, photos screen shot from Envoco report 2022. Left green foliage March 2022. Right sprayed (no date).

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10 November 2022

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Re: Gleeson and Cox Fill Consent Application: Ecological Effects assessment for Waikato District Council

1 Background

Gleeson Quarries Huntly Limited is seeking resource consent to create an overburden placement site and operate a managed / clean fill site at the Huntly Quarry. It is anticipated that the same fill areas will be used for both overburden and managed fill. The proposed fill sites are located on farmland around the north and western sides of Huntly Quarry on Riverview Road, Huntly.

The proposal will affect areas of indigenous vegetation (terrestrial and wetland) and native fauna habitat within the Waikato District, and trigger rules in the Operative and Proposed Waikato District Plans.

You have asked me to consider, in relation to the proposal:

- Effects on indigenous vegetation loss
- Effects on habitat loss
- Effects on fauna
- Fragmentation and/or isolation of ecosystems and habitats
- Damage/disruption to ecological processes, functions and ecological integrity, including ecosystem services
- Cumulative effects of vegetation clearance
- Ability to offset effects

2 Summary

1. The proposal will result in the loss of 3327 m² of indigenous terrestrial vegetation¹, including riparian vegetation, secondary scrub, and self-established indigenous understory beneath exotic trees², along with 9 mature native trees (two unhealthy),

¹ Envoco, September 2022

² See Figure 1, Appendix 4 of this memo

and resultant loss of habitat for common native bird species, long-tailed bats and possibly lizards including copper skinks (At Risk-Declining).

2. It will also result in the permanent loss of at least 1869 m² of wetland habitat and some loss of habitat for short-fin eels (not threatened).
3. A bat management and monitoring plan has been prepared, and, with a few minor additions, can adequately address the likely potential impacts on long-tailed bats.
4. A lizard management plan has not been prepared, but can be included as a condition of consent.
5. Earthworks will be undertaken within an SNA, but of an inconsequential scale (digging holes for compensation planting).
6. A compensation package is proposed³ that comprises fencing, pest and weed control, 12,109 m² of terrestrial planting, and 2,400 m² of wetland planting (but note 1500 m² of it is within an area of existing native wetland grassland that was mapped in the EMP as exotic grassland).
7. Three of the compensation activities (fencing the compensation site, planting and plant pest control within 2,400 m² of the wetland in the compensation site) were offered by the applicant as mitigation for unconsented drainage of Fill Area (FA) 3 which was undertaken prior to this application. I have discounted those activities from my assessment of offsets for FA2, FA4 and the remnants of the FA3 wetland as of 7 June 2022. Some of the mitigation works for FA3 included unconsented spraying of indigenous wetland vegetation and poisoning via drilling > 500 m² of exotic wetland vegetation - potentially in breach of the NES Freshwater Management and regional and district plan rules.
8. The residual proposed compensation activities are planting and weed control in terrestrial parts of the compensation site, and animal pest control, which will adequately mitigate the loss of terrestrial vegetation and habitat in the fill areas. Some of these activities had already occurred as of 7 June 2022.
9. The proposed compensation package (excluding works completed to mitigate the unconsented FA3 wetland loss) will not mitigate the proposed additional loss of at least 1869 m² of significant wetland in FA2, FA4 and remnants in FA3. No mitigation has been offered for spraying up to 2000 m² of native swamp millet in the compensation area.
10. Wetland areas could be created in association with the proposed sediment ponds, which may provide suitable wetland loss offsets.
11. Some ecological monitoring for the compensation works is variously proposed in multiple documents including the EIA, the EMP⁴, an Envoco monitoring report, and a separate Envoco pest animal management plan⁵. For avoidance of doubt about what will be done, where, when and for how long, these documents should be compiled into a single comprehensive ecological monitoring plan for the compensation area,

³ Wildlands May 2020

⁴ Wildlands May 2020

⁵ Envoco 2021. Pest Animal Management Plan

with a clear monitoring timeframe, and regular (at least annual) reporting to council. This can be included as a condition of consent.

3 Scope and Methods

My area of expertise lies within wetland ecosystems and terrestrial and wetland ecology.

My understanding is:

- Gleeson Group are seeking resource consent from Waikato Regional Council and Waikato District Council to fill four sites with overburden and managed fill on their land at Huntly.
- Three fill sites include wetlands, all of which are deemed in the applicant's EIA to meet the Waikato Regional Policy Statement definition of significant area of indigenous vegetation or habitat for indigenous fauna. One of these areas (Fill Area 3) was dominated by indigenous wetland species⁶, and supported native fauna (short-fin eels) but was partially drained prior to resource consent being issued.
- A mitigation package involving a single compensation site has been proposed, comprising a nearby gully (approximately 1 km west of the fill areas) with remnant indigenous forest and wetland, part of which is sited within a WDC SNA. The compensation package comprises planting, weed control, pest control and fencing from stock. Parts of the compensation package were offered in August 2020 to mitigate the unconsented loss of Fill Area 3 prior to the application being lodged⁷.
- The application will be publicly notified.

I have reviewed (among other material provided by Paua Planning via a shared online drive) the following documents and base my comments on these documents, aerial/satellite images, and a site visit on 7 June 2022.

1. A letter from Dr Jamie MacKay, Senior Ecologist, Wildland Consultants, to Bianca Schoeman, Paua Planning Ltd, 12 November 2019 titled GLEESON QUARRY HUNTLY OFFSET LOCATION ASSESSMENT.
2. Gleeson Quarries Huntly Limited - District and Regional Resource consents for new fill sites within quarry landholdings: Ecological Impact Assessment. Boffa Miskell Ltd 14 November 2019.
3. An ecological mitigation/compensation plan prepared by Wildland Consultants, May 2020: Contract Report No. 5208f: ECOLOGICAL MANAGEMENT PLAN FOR THE PROPOSED COMPENSATION SITE AT GLEESON QUARRY, HUNTLY.
4. An email from Kate Madsen, Director & Principal Planner, Paua Planning Ltd, to Emma Cowan (Waikato Regional Council), 18 August 2020. "PROPOSED MITIGATION FOR DRAINAGE OF WETLAND POND IN 'FILL AREA 3' ON GLEESON LANDHOLDINGS, HUNTLY".
5. Letter from Stantec to Gleeson Group, 24 December 2021, titled Huntly Managed Fill: Wetland Peer Review.
6. Reply to s92 request for further information from Kate Madsen, Paua Planning Ltd, 20 June 2022.
7. Bat Management Plan, Wildland Consultants 2020.
8. Envoco Pest Management Plan, May 2021.

⁶ According to Boffa Miskell 2019, Environmental Impact Assessment, pg 11.

⁷ Letter from Paua Planning to Emma Cowan, 18 August 2020

9. Envoco, Ecological Mitigation Monitoring Report Gleeson Huntly Quarry Gleeson & Cox Ltd May 2022
10. Paua Planning, 28 June 2022. ASSESSMENT OF EFFECTS PROPOSED OVERBURDEN & MANAGED FILL ACTIVITY RIVERVIEW ROAD HUNTLY
11. Envoco, Quantification of indigenous terrestrial vegetation in Fill Areas 2 and 4. September 2022.
12. Additional material emailed to me, including a response to a s92 request for further information.

On 7 June 2022, I conducted a half-day site visit with Josh Joshua Evans, Resource Officer, Waikato Regional Council. We were driven to a ridge above Fill sites 2, 3, and 4, and guided to Compensation Area 4 by Shawn McLean, Gleeson Group. Shawn did not accompany us on foot. We walked Fill Site 2 and looked at the stream gully below it, we traversed Fill Site 3, and looked at Fill Site 4 and the stream gully below it. We then drove to and walked much of the length of the wetland in Compensation Area 4, at least as far up as the confluence of the two headwater gullies that comprise an SNA.

4 Relevant district policies

See Appendix 1 for a more detailed assessment of the ODP and PDP policies related to biodiversity. These include provisions for identified significant areas of indigenous vegetation and habitat for indigenous fauna, and for biodiversity outside of significant areas (including in wetlands and indigenous vegetation understory).

The relevant policies include application of an effects hierarchy to avoid, remedy, then mitigate adverse effects on indigenous biodiversity, including indigenous vegetation and significant habitats for indigenous fauna. They provide for biodiversity offsetting where adverse effects cannot be avoided or remedied.

5 Relevant district rules and definitions

The proposed activities will have the following effects relevant to the OPD and PDP:

- Clearance of up to⁸ 1869 hectares of indigenous wetland vegetation and habitat.
- Clearance of 3327 m² of indigenous terrestrial forest and scrub and indigenous understory vegetation⁹.
- Clearance of 9 mature native trees (two unhealthy tawa unlikely to survive in their exposed situation, and 7 rimu trees up to 20 m tall)¹⁰.
- Loss of habitat for shortfin eels (not threatened)
- Loss of roost habitat for long-tailed bat (Nationally Critical).

⁸ The applicants have quantified the area of wetland affected, this may include areas of open water. Precise extents for the vegetated sections of the wetlands have not been provided. Note this is based on the situation as at 2022 and does not include up to 4.2 hectares of native rush-dominated inundated paddock per Boffa Miskell 2019, EIA pg 11, and illegally drained in 2020. It does not include areas of wetland seen below fill Areas 2 and 4 during my site visit 7 June 2022, however these are not expected to be affected by the application (based on Erosion & Sediment Control Plans revised 18 Sept 2022).

⁹ Envoco, September 2022, Quantification of indigenous terrestrial vegetation in Fill Areas 2 and 4

¹⁰ Envoco, September 2022, Quantification of indigenous terrestrial vegetation in Fill Areas 2 and 4

- Potential loss of habitat for copper skinks (At Risk- Declining) and NZ pipit (At Risk-Declining).

See Appendix 2 for a full assessment of the ODP and PDP rules and Table 1 for a list of relevant definitions and assessment notes. See Appendix 3 for a detailed assessment of ecological effects of the proposal.

Table 2 provides an assessment of the areas that will be cleared against the matters over which council maintains discretion.

Under the Operative Waikato District Plan (Decisions Version) restricted discretionary consents are required for;

- 25.43A Indigenous vegetation clearance, unless the Council certifies that the vegetation to be cleared is not significant indigenous vegetation or significant habitat of indigenous fauna.

Under the Proposed Waikato District Plan (Decisions Version) restricted discretionary consents are required for;

- ECO-R3 Earthworks in a Significant Natural Area for purposes other than the
- maintenance of existing tracks, fences or drains
- ECO-R11 Vegetation clearance outside a Significant Natural Area
- ECO-R15 Clearance of manuka or kanuka outside a Significant Natural Area
- ECO-R16 Vegetation clearance outside a Significant Natural Area for any reason not specified in Standards ECO-R11 to ECO-R15

Table 1: Relevant definitions in the ODP and PDP

	ODP	PDP Decisions Version	My assessment
Earthworks	Means modification of land surfaces by blading, contouring, ripping, moving, removing, placing or replacing soil or earth, or by excavation, or by cutting or filling operations, and excludes the cultivation of land, the digging of holes for the erection of posts, the construction of fence lines, or the planting of trees, landscaped area and gardens, and the stockpiling of coal.	Means the alteration or disturbance of land, including by moving, removing, placing, blading, cutting, contouring, filling or excavation of earth (or any matter constituting the land including soil, clay, sand and rock); but excludes gardening, cultivation, and disturbance of land for the installation of fence posts. NB Cultivation : Means the alteration or disturbance of land (or any matter constituting the land including soil, clay, sand and rock), for the purpose of sowing, growing or harvesting of pasture or crops.	Note, this may include hand dug holes for planting native trees, as they do not meet the definition of cultivation. Gardening is not defined in the PDP. ODP does not apply to planting in the SNA. Effects are negligible within the SNA.
Indigenous Vegetation	Means vegetation that occurs naturally in New Zealand or arrived in New Zealand without human assistance. For the purposes of this plan, domestic or ornamental / landscaping planting, or planted shelterbelts, comprised of indigenous species are not included.	Means vegetation that occurs naturally in New Zealand or arrived in New Zealand without human assistance. It excludes domestic or ornamental / landscaping planting or planted shelter belts comprising indigenous species.	Includes indigenous wetland vegetation. Includes self-established indigenous vegetation that is understory to exotic species.
Vegetation clearance	Includes the burning, cutting, crushing, spraying and removal of all forms of vegetation including indigenous and exotic plants. It does not include that relating to routine cultivation or grazing, pruning or waste thinning operations or canopy damage	Means the modification, burning, cutting, crushing, spraying and removal by physical, mechanical, chemical or other means, of all forms of vegetation, including indigenous, and may include exotic plants. It does not include vegetation clearance relating to routine cultivation or grazing.	Indigenous understory beneath the redwood trees are excluded from vegetation clearance rules in the OPD but not in the PDP.

	resulting from forest harvest activities. In relation to indigenous vegetation and habitat clearance rules, it does not include clearing areas where indigenous species make up less than 50% of the vegetation canopy.		Includes spraying of indigenous swamp millet and control of grey willow in the compensation area.
Biodiversity offsetting	Not defined.	Biodiversity offsets are measurable conservation outcomes resulting from actions designed to compensate for significant residual adverse biodiversity effects arising from project development after appropriate prevention and mitigation measures have been taken.	See notes in Table 2 regarding offsets.

Table 2: Assessment of matters for discretion under RD rules in the PDP

Matters for discretion	Assessment
(a) The extent to which the clearance will result in the fragmentation and isolation of indigenous ecosystems and habitats;	The affected areas are in blind gully headwaters and are not currently corridors to other natural areas upstream, but are buffers to waterways that flow downstream to other natural areas. However, ephemeral streams within the fill areas will also be filled.
(b) The extent to which the clearance will result in loss, damage or disruption to ecological processes, functions and ecological integrity, including ecosystem services;	Clearance of riparian vegetation will have adverse effects on functioning of adjacent ephemeral streams, however the streams will also be filled. Ecosystem services such as carbon uptake and habitat provision will be compensated for by offsite planting of indigenous vegetation.
(c) The cumulative effects of the vegetation clearance;	An EMP proposes riparian planting as an offsite mitigation for the loss of indigenous vegetation. As the quantum of offset is greater than the area lost there will be little cumulative loss of vegetation and a likely net benefit for terrestrial species. The affected vegetation is young regenerating, so replanted vegetation (well-managed with weed control) will achieve a similar age within 20 or so years.
(d) The extent to which the clearance affects Tangata Whenua relationships with indigenous biodiversity on the site;	This can only be assessed by the relevant Tangata Whenua.
(e) The extent to which the indigenous biodiversity contributes to natural character and landscape values, including in areas of outstanding natural character, outstanding natural features, outstanding natural landscapes and significant amenity landscapes	The areas to be cleared are small and inside incised valleys, surrounded by exotic vegetation. Their contribution to the natural character and visual landscape of the area is minimal.
(f) The extent to which adverse effects have been avoided, remedied, mitigated or if this is unable to be achieved, the extent of offsetting on significant residual adverse effects.	Direct effects on an SNA have been avoided by choosing areas outside the SNA for the fill activities. The EMP proposes riparian planting adjacent to and just downstream of an SNA as an offsite mitigation for the loss of indigenous vegetation. The proposed offsetting is adequate for adverse effects on terrestrial vegetation and habitat for terrestrial species. It is not adequate for the anticipate loss of wetland habitat. A suitable compensation is required to offset the proposed wetland loss. Works to date have been undertaken to offset unconsented losses in FA3 that occurred prior to the application being lodged.

6 Fill Area 3 and compensation works as at 7 June 2022

Fill Area 3 is described in the EIA¹¹ (based on field survey 25 to 29 June 2019) as comprising “4.2 ha within a grazed paddock, a large part of which appears to be relatively regularly inundated.”

Much of Fill Area 3 was described in 2019 as dominated by a native wetland rush, Edgar’s rush (*Juncus edgarii*), interspersed with patches of rank grass. The site was drained in June 2020. That was prior to notification of the Proposed Waikato District Plan decisions version on Monday 17 January 2022, however under the Operative Waikato District Plan rule 25.43A

¹¹ Ecological Impact Assessment. Boffa Miskell Ltd 14 November 2019

the clearance of indigenous vegetation would have required restricted discretionary consent from Waikato District Council (WDC), unless the WDC certified that the vegetation cleared was not significant indigenous vegetation or significant habitat of indigenous fauna¹².

Mitigation activities to offset the damage to the wetland in FA3 were proposed to the Waikato Regional Council (Paua Planning letter to Emma Cowan, Waikato Regional Council, 18 August 2020). They comprised:

1. Fencing around entire compensation area, c4 hectares: see Figure 1 in Wildlands Report 'Ecological Management Plan for the proposed Compensation Site at Gleeson Quarry, Huntly' dated May 2020.
2. Complete initial pest plant control in Management Units 2a, 3d and 6: see Figure 2 in Wildlands Report 'Ecological Management Plan for the proposed Compensation Site at Gleeson Quarry, Huntly' dated May 2020.
3. Planting of Areas 9 and 10 as illustrated on Figure 4 in Wildlands Report 'Ecological Management Plan for the proposed Compensation Site at Gleeson Quarry, Huntly' dated May 2020.

During our site visit on 7 June 2022 a team of Envoco staff (who introduced themselves to us) were planting the gully of Compensation Area 4. We saw:

1. A recently installed fence encircling the gully (some areas of exposed soil on the fence benches were not yet grassed).
2. Defoliated grey willow trees in MUs 2a and 2b¹³ of the Wildlands EMP.
3. No pest plants in MU 3d.
4. Desiccated native swamp millet in MU 6.
5. Carex sedges and other native species had been planted in the wetland (under dead grey willow in Planting Area 10 and among desiccated native swamp millet in Planting Area 9).
6. Several predator traps had been installed.
7. Planting on side slopes and additional plants stacked presumably for subsequent planting.

The first five of these activities match the mitigation package offered for the unconsented drainage works in Fill Area 3¹⁴. As such, I discount those five activities from my assessment of the appropriateness of compensation for future adverse ecological effects in Fill Areas 2 and 4, and for any remaining areas of wetland within Fill Area 3 as of June 2022.

During our 7 June 2022 visit to Compensation Area 4, an area of indigenous swamp millet (c2000 m²) in Planting Area 9/ MU 6 was yellow-brown (see Figure 3 showing a close up photograph of the seed head confirming my species identification).

Swamp millet can brown off after suffering from summer drought (personal observation), however Figure 20 in the Envoco 2022 Ecological Mitigation Monitoring Report shows this area was green in March of 2022. The Envoco report states that an area of what they describe as exotic Mercer grass was sprayed with a spray gun using 100 g/litre haloxyfop-P present as haloxyfop-P-methyl (see Figure 4). Blanket spraying of this area was recommended in the Ecological Management Plan (EMP, 2020 s7.2.7 and s9.3) which also stated the grass was exotic Mercer grass. It is not feasible for that area to have been Mercer

¹² Note regional consent was also likely to be required.

¹³ Note this is mapped as MU 2 on page 16 of the EMP, I am treating that as MU 2b.

¹⁴ Letter from Kate Madsen, Paua Planning to Emma Cowan, Waikato Regional Council, 18 August 2020

grass in March 2022, sprayed with a herbicide with a 12-week withholding period, and then self-established as a native grass sward, grown to excess of 50 cm height, flowered, and then browned off by 7 June 2022.

Therefore, I believe it was indigenous grass that was sprayed between March 2022 and 7 June 2022, based on Figure 20 of the Envoco report. This was later confirmed by Envoco¹⁵. This would have required a consent from Waikato District Council for clearance of indigenous vegetation outside of a SNA, unless the council had certified it to be not significant prior to spraying. It would also require consent under the NES Freshwater released in September 2020. It can certainly not be considered a compensatory activity for any wetland loss from the fill areas.

7 Ecological mitigation/biodiversity offsetting

The proposed activities will result in the loss of 3327 m² of indigenous vegetation in the form of regenerating scrub, naturally established understory vegetation below exotic conifers¹⁶. In addition, it will result in the loss of at least 1869 m² of wetland habitat. See Appendix 3 for a more detailed analysis. The stated losses cannot be avoided or remedied, other than by declining consent, and therefore are subject to offsetting under the effects hierarchy.

Table 3 presents a summary of the proposed compensation works and my assessment of their appropriateness.

Boffa Miskell (14 November 2019) recommend the following actions to mitigate the ecological impacts of the activities:

- *Undertake avifauna and long-tailed bat surveys enabling a completed comprehensive assessment of effects that will facilitate determination of appropriate management;*
- *Preparation and implementation of a Fauna Management Plan which outlines strategies to avoid, minimise, remedy or mitigate any potential adverse effects on native fauna;*
- *Creating wetland habitat at a ratio of 1:1 to mitigate for the loss of 1530 m² total wetland area; and*
- *Implementation of an appropriate fill management as well as erosion and sediment control plan to avoid any discharge effects on downstream freshwater receiving environments*

My understanding is that:

- Avifauna and lizard surveys have not been conducted, but a lizard management plan is offered by the applicant. Bird monitoring in the nearby compensation area detected only common native species and exotic species (Envoco 2022).
- A long-tailed bat survey has been completed and a Bat Management Plan (Wildland Consultants 2020) provided. With some minor amendments, the proposals in the Bat Management Plan will adequately avoid and mitigate adverse effects on long-tailed bats.
- A lizard management plan has not been prepared but could be included as a condition of consent.

¹⁵ Response to WDC Memo Re: Gleeson and Cox Fill Consent Application: Wetland Ecological Effects. Karen Denyer, July 2022. Response prepared by Ohara McLennan (Ecologist, Envoco Ltd) for Kate Madsen, Paua Planning Ltd. "Although swamp millet was removed,..."

¹⁶ Envoco September 2022, Quantification of indigenous terrestrial vegetation in Fill Areas 2 and 4

- An Ecological Management Plan for the Proposed Compensation area was prepared by Wildland Consultants (May 2020).
- Several of the works proposed in the EMP had already been implemented prior to consent application being lodged on 14 April 2022, and many of those had been offered as compensation for unconsented drainage of FA3. Additional of the activities proposed in the EMP had been completed as of 7 June 2022. With the exception of mammalian predator control, riparian/ terrestrial planting and ongoing weed control, those completed works match those proposed by Paua Planning to mitigate the premature drainage of wetland in Fill Area 3.

Having discounted the activities conducted to mitigate the unconsented wetland drainage in Fill Area 3, the following activities remain on the table to compensate all proposed adverse terrestrial and wetland ecological effects other than bats (covered by a separate management plan):

1. Ongoing weed control in the compensation gully.
2. Ongoing pest animal control in the compensation gully.
3. Terrestrial/riparian planting of approximately 1.2 hectares.

7.1 Terrestrial vegetation, bird and lizard habitat

Approximately 12,109 m² of dryland planting is offered in the compensation zone to offset the 3327.5 m² loss of riparian vegetation and terrestrial habitat from Fill Areas 2 and 4. The quantum of gain to loss is at least 3:1, and I am comfortable that the loss of second growth terrestrial indigenous vegetation (much of it weed-infested) and associated avian and lizard habitat, as a result of the proposed activity is adequately offset by planting and ongoing pest control in the Compensation Area. Note that active search and translocation of lizards may be required under the Wildlife Act. My point here is that the loss of *habitat* for these species is adequately addressed resulting in no net loss of terrestrial vegetation and habitat.

7.2 Wetland mitigation

Within the Fill Areas 2 and 4 at least 1869 m² of constructed but ecologically significant¹⁷ wetland are expected to be destroyed. After discounting activities conducted to mitigate unconsented works in Fill Area 3, there is little ecological gain to be made in terms of extent of indigenous wetland vegetation, open water habitat, or short-fin eel habitat within the Compensation Area.

Even prior to the works conducted to mitigate the unconsented loss of wetland from FA3, there was little to be gained in terms of wetland compensation from the EMP proposal. The EMP states, and I concur, that *“it will be difficult to demonstrate an increase in ecological values by restoring the indigenous-dominated wetland habitats.”*

A 2000 m² area that was described in the EMP as exotic grassland dominated by Mercer grass (*Paspalum distichum*)¹⁸ was, on 7 June 2022, and indigenous-dominated wetland habitat, comprising native swamp millet (*Isachne globosa*)¹⁹ (see Figure 3). I agree with Dr

¹⁷ Per the EIA, Boffa Miskell 2019.

¹⁸ Vegetation type 10/ MU 6/ PA 9, see map on page 5 and description on page 13 of the EMP.

¹⁹ During the site visit on 7 June 2022, I found that area that the EMP refers to as Vegetation Type 10/ Management Unit 6/Planting Area 9 described as comprising 70% exotic Mercer grass, was 90% native swamp millet, some of it over 1 m in height, with sedges interplanted across the entire swamp millet zone. It seems unlikely that an almost solid cover of swamp millet has replaced an almost solid cover

Mackay that planting native sedges in an existing area of *indigenous-dominated wetland habitat* will not comprise an increase in ecological values, and will not offset the loss of wetland vegetation and open water habitat from any of the fill areas.

Ecologists engaged by the applicant accept that they cleared native swamp millet vegetation (presumably without consent) from the compensation site²⁰ in order to replace that existing native wetland vegetation with species that will be lost from FA2 and FA4, stating in a memo from Ohara McLennan to Kate Madsen Paua Planning (no date) that:

“Sedgeland/open water habitat was created in the compensation area, this is like-for-like mitigation for the fill areas, and is also similar to upstream naturally-occurring [sic] wetland habitat within the compensation area. Although swamp millet was removed, the restoration created similar habitat to what will be removed in fill areas..”

- Firstly, those works were offered by the applicant to offset unconsented drainage of FA3, and are therefore not relevant to the current application to destroy significant wetlands in FA2 and FA4.
- Secondly, no open water habitat had been created as of my site visit 7 June 2022.
- Thirdly, clearing an existing area of native wetland vegetation (without consent) and replanting it in a different type of wetland vegetation as an offset is not ecological best practice and is not consistent with the biodiversity offset requirements in the Waikato District PDP. Appendix 3 of the PDP requires that residual adverse effects be off set in a manner consistent with eleven principles including that: *(7) The values to be lost through the activity to which the offset applies are counterbalanced by the proposed offsetting activity which is at least commensurate with the residual adverse effects on indigenous biodiversity, so that the overall result is no net loss.”*

The proposed activities will lead to a net loss of wetland extent because:

- a) The compensation fencing, wetland planting and wetland weed control were offered to mitigate in full the unconsented losses in FA3, and therefore cannot be simultaneously counted towards losses in FA2 and 4, and
- b) the unconsented loss of native swamp millet in the compensation area is an additional loss for which no compensation has been offered.

There are two opportunities I consider can be appropriate offsets.

1. A small area of exotic wetland exists near the confluence of the two upper gullies in the compensation area. This was approximately 100 m² and dominated by exotic Yorkshire fog (*Holcus lanatus*) and blue sweet grass (*Glyceria declinata*). It could be restored to indigenous wetland as a partial offset contribution.
2. Further, there may be opportunities to create offset wetlands in association with the proposed sediment ponds within the fill gullies. These could be planted above,

of Mercer grass since the Wildlands survey in May 2020, or since the area was sprayed by Envoco (March to June 2022). It is possible that the grass was mis-identified by Wildland Consultants during their site visit because it was grazed low to the ground, removing the readily distinguishable seed heads.

²⁰ ECOLOGICAL RESPONSE TO WRC OCTOBER 2022, Envoco

below and around the pond edges in a manner that allows digger access for regular mechanical sediment removal without affecting the plants.

Table 3: Assessment of proposed compensation works

Compensation proposal	Details	Area_m ²	Compensates	Notes	Determination
Bat Management Plan	Creation of bat reserve with artificial roosts and monitoring	n/a	Loss of bat habitat	Wildlands BMP 2022	Adequate compensation with conditions to ensure best practice management and legal protection of the constructed roost site.
Pest management control (EMP)	Predator control for at least 6 years	c4 hectares	Lizard /bird direct and indirect mortality from habitat clearance and loss	Lizard monitoring and salvage may be required under the Wildlife Mgt Act	Adequate compensation for avian/lizard habitat loss.
Area 1-8 planting (EMP)	Terrestrial planting, stated as buffer to protect wetland	7084	Loss of 3327 m ² of indigenous terrestrial vegetation Loss of lizard/ bird habitat	Works may have been completed prior to the application being processed.	Adequate compensation for loss of terrestrial and riparian vegetation and lizard/bird habitat. Increases total ecosystem quality / diversity in the compensation area, but <u>does not directly offset wetland loss from FA2 and 4 in like for like manner.</u>
Weed control –MUs 1 a-d, 3 a-e, 4 (EMP)	Terrestrial weed control	Not stated	Loss of indigenous terrestrial vegetation, loss of lizard/bird habitat	Necessary for the successful establishment of planted vegetation and to enhance the existing terrestrial vegetation.	Adequate contribution to loss of indigenous terrestrial vegetation and to improve successful establishment of planted terrestrial areas.
Weed control MU5 (EMP)	Greater bindweed control in <i>Carex</i> MU 5.	Not stated	Small contribution to wetland loss compensation where exotic wetland vegetation is replaced with natives as of 2022	I did not see greater bindweed in this location – perhaps already cleared? - but the upper wetland has a 100 m ² weedy area that could be included as a compensation site.	Potential compensation site of 100 m ² extent. 100 m ² area of exotic wetland in the compensation site could be converted to indigenous wetland as an offset. It is dominated by <i>Holcus lanatus</i> and <i>Glyceria declinata</i> . That would create new indigenous wetland habitat in an area of exotic wetland habitat. It is not mapped separately in the EMP.

Compensation proposal	Details	Area_m ²	Compensates	Notes	Determination
Weed control – MU 2a, 3d, 6 (EMP)	Pest plant control includes grey willow, privet, gorse etc	Not stated	Unconsented wetland drainage in FA3 – letter from Paua Planning, 18/8/2020	Offered by the applicant as mitigation for unconsented works. Also included Mercer grass however the area mapped as Mercer grass was native swamp millet when sprayed and planted in 2022	Not compensation. Activity was mitigation for unconsented works in FA3 prior to the application being lodged. Some may have been in breach of 500 m ² max clearance rule s37 for wetland restoration under the NES Freshwater Management, therefore RD under NES s38.
Weed control MU 2	Grey willow control max 350 m ² , based on half of Veg Unit 3 area, half is pond (visible in Fig 1 of the EMP)	Not stated, est . 350	Not offered to compensate FA3 but the works have been bundled up with the FA3 comp works and completed in advance of application lodgement.	Ecologically contributes towards the likely full extent of loss from FA3, however planning matter to determine if they should be treated as FA3 offset, or if they can contribute as works completed in advance of the application	Contributory offset to the likely full quantum of unconsented loss from FA3 in an ecological context. However, in a planning context this activity may be exempt from FA3 offsets if the mitigation package was accepted as full and final offsetting for FA3 by the relevant authorities. If to be considered as offset for FA 2 and 4 this would not be like for like (ie trades wetland quantity for wetland quality).
Area 9 planting (EMP)	Planting in an indigenous wetland	1500	Unconsented wetland drainage in FA3 – letter from Paua Planning, 18/8/2020	Area was not exotic grass as described in the EMP at time of planting. It was indigenous wetland vegetation that has been sprayed without consent.	Not compensation. Activity does not offset wetland loss. Site was already indigenous wetland vegetation and should not have been sprayed with herbicide. Unconsented clearance of native swamp millet to plant sedges was likely in breach of the NES rules for wetland vegetation clearance.
Area 10 planting/ weed control (EMP)	Planting	900	Unconsented wetland drainage in FA3 – letter from Paua Planning, 18/8/2020	Offered by the applicant as mitigation for unconsented works in FA3	Not compensation for loss of wetland in FA2 and FA4. Activity was mitigation for unconsented works in FA3 prior to the application being lodged.

Compensation proposal	Details	Area_m²	Compensates	Notes	Determination
Fencing (EMP)	Fencing entire compensation area	c4 hectares	Unconsented wetland drainage in FA3– letter from Paua Planning, 18/8/2020	Offered by the applicant as mitigation for unconsented works in FA3	Not compensation for loss of wetland in FA2 and FA4. This activity was mitigation for unconsented works in FA3 prior to the application being lodged.
Ongoing weed control (EMP)	Pest plant control for at least 6 years	c4 hectares	Loss of terrestrial and riparian vegetation.	Maintenance of compensation planting to allow it to establish successfully.	Activity to ensure successful establishment of compensation planting.

7.3 Legal protection of compensation areas

The EMP states that the *“proposed compensation site has been identified as a Significant Natural Area (SNA_16743) and therefore has legal protection under the Waikato Regional Council Regional Policy Statement 2018.”*

I disagree with this statement for two reasons:

1. The wetland areas are not fully within the SNA in the WDP (see Figure 2).
2. Areas of vegetation within SNA's are not absolutely protected in perpetuity. Under the Proposed Waikato District Plan, certain vegetation clearance activities within SNAs are permitted or controlled, including clearance for firewood, building, access, parking and manoeuvring areas. Beyond that any clearance can occur subject to a discretionary consent – and therefore the SNA has no greater legal protection than the wetland areas proposed for infilling for which discretionary consent is being sought.

A condition of consent can be included to secure legal protection via covenant or similar tool of the compensation site.

7.4 Mitigation summary

- The dryland planting in the compensation area will adequately offset the loss, and result in no net loss, of terrestrial vegetation and habitat.
- The Bat Compensation Plan, with minor amendments, will adequately offset the loss of long-tailed bat habitat. I recommend for avoidance of doubt that a condition of consent be included to ensure the BMP is completed in accordance with best management practice for management of artificial bat roosts²¹.
- A lizard management plan should be required as condition of consent to search for and salvage or otherwise provide for copper skinks and any other native lizards.
- None of the proposals in the EMP will result in creation of additional areas of indigenous wetland and open water to replace wetland habitats that will be lost from fill areas 2 and 4 and residual wetland in FA3. There are opportunities for this in the compensation area (up to 100 m²) and potentially in association with the proposed sediment ponds. Spraying and planting sedges in an existing area of swamp millet is not appropriate mitigation, and this, along with fencing and some weed control was already offered as compensation for loss of much of the FA3 wetland.
- After discounting the works already undertaken or offered to compensate the unconsented loss of Fill Area 3, the residual proposed compensation activities to offset wetland loss comprise c350 m² of grey willow control (in MU2, which has already occurred), and ongoing weed control and predator trapping for an unstated

²¹ Copy available at <https://ftp.doc.govt.nz/public/folder/J8y-HgKTuEmoYMZtafa6nA/bat-recovery/Bat%20recovery%20group%20advice%20notes/doc-artificial-bat-roost-advisory-note-2021.pdf>

duration (minimum 6 years). This is not commensurate with the quantum and type of wetland loss anticipated in the fill areas.

- The proposed compensation activities will not be absolutely legally protected in perpetuity via the Proposed Waikato District Plan, however a suitable condition of consent can be included to ensure legal protection of all compensation sites.

8 Ecological monitoring

- The EIA had no reference to ecological monitoring other than success monitoring for released lizards (if any).
- The EMP (Wildland Consultants 2020) includes reference to trap catch/bait take monitoring of pests, but no monitoring for residual pests (including bait/trap shy individuals), nor any monitoring of native fauna species to assess the benefits of the restoration activities. The EMP includes requirements to monitor and report on weed control operations and effectiveness.
- The Bat Management Plan includes a period of 15 years monitoring of the effectiveness of artificial bat roosts, but should also include checks on the effectiveness of the predator bands protecting them.
- The Envoco report 2022 reports on monitoring activities that have been undertaken to date and some proposed activities, including for birds and macroinvertebrates, but with no timelines. Note that the proposed use of leg-hold traps is not advisable so close to residences where domestic pets may be at risk (permission must be sought from all properties within 150 of the traps).
- The Envoco Pest Management Plan offers a clear methodology and timeline for animal pest monitoring in the compensation area.
- These multiple proposals are a good starting point for a clear and comprehensive Ecological Monitoring Plan that should be developed and implemented for the compensation site.

If consent is granted it is recommended that a single Compensation Area Ecological Monitoring Plan be prepared and implemented for terrestrial and wetland monitoring, with clear timelines. Annual reports should be sent to the relevant Council outlining outcomes and outputs of activities and monitoring results, such as:

1. Kill trap and bait take records.
2. Residual pest records, using industry best practices such as chew card and tracking tunnel detection devices for at least one round of predator detection per year.
3. Weed control methods as proposed in the EMP.
4. Planting survival records for at least three years and annual photo-points.
5. Area of new wetland created.
6. Area of new terrestrial indigenous vegetation created.

9 Recommendations

1. A wetland compensation plan be prepared and implemented that mitigates wetland loss in FA2 and FA4 on a like-for-like basis as proposed in the EIA, i.e. the loss of wetland area be compensated by the creation of an area of indigenous vegetation and open area wetland habitat that is the same or larger extent elsewhere. Said plan should be approved by a suitably qualified ecologist for the council.
2. Include a condition of consent that a combined terrestrial and wetland ecological monitoring plan be developed and implemented for the compensation area, including clear methodology, location of monitoring devices/plots and a timeline of monitoring activities including how many years each activity will be conducted for. There should be regular (at least annual) reports sent to Council to be assessed by a suitably qualified ecologist. The Compensation Area Ecological Monitoring Plan should be approved by a suitably qualified ecologist for the council.
3. Include a condition of consent to seek formal legal protection for all compensation areas subject to the application, including the bat reserve.
4. Include a condition requiring lizard site-specific survey and salvage prior to and during habitat removal, to minimise mortality to any resident population. A suitable relocation site should be identified.
5. Incorporate implementation of the Bat Management Plan as a condition of consent with the requirement that it be compliant with best management practice for artificial roost management as outlined in: *New Zealand Bat Recovery Group Advice Note – The Use of Artificial Bat Roosts. 18 October 2021*. In particular, specify that acoustic surveys be conducted in the appropriate season, that predator exclusion bands surrounding artificial roosts be inspected annually and adjusted as needed for 15 years, and that the bat reserve be subject to appropriate legal protection in perpetuity.



Karen Denyer
Director and Principal Ecologist
Papawera

Appendix 1: Relevant district plan policies

Operative District plan

2.2.6

Subdivision, use and development should be located and designed to avoid, remedy or mitigate adverse effects on indigenous biodiversity. This will include adverse effects on the ecological functioning and values of significant indigenous vegetation and significant habitats of indigenous fauna, in-stream values, riparian margins and gullies.

2.2.8

The features and values that characterise areas of indigenous vegetation and habitats of indigenous fauna and that contribute to biodiversity should be protected from inappropriate subdivision, use and development.

2.2.7

When avoiding, remedying or mitigating adverse effects on indigenous biodiversity, regard should be had to:

1. the need for species to continue to have access to their required range of food sources and habitats during their life cycle
 2. the need for species to have access to refuges from predators and disturbances
 3. the maintenance of natural isolation
 4. the need to prevent invasion by exotic species
 5. the need to maintain vegetation structure, such as a continuous closed-forest canopy and under-storey, and the compactness of an area's shape to limit edge effects such as wind damage
 6. the need to replace or restore habitats
 7. retaining and restoring the natural character and landscape values of the area
- (ga) maintenance and enhancement of ecological corridors and buffer areas.

Proposed District Plan_Decisions Version

The following apply to activities in SNAs

ECO-P2 Management hierarchy.

(1) Recognise and protect the values of indigenous biodiversity within Significant Natural Areas by:

- (a) Avoiding adverse effects of vegetation clearance and the disturbance of habitats in the first instance as far as practicable;
- (b) Remedying and/or mitigating any effects that cannot be avoided; then
- (c) After remediation or mitigation has been undertaken, offset any more than minor residual adverse effects in accordance with Policy ECO-P3.
- (d) If offsetting of any significant residual adverse effects in accordance with Policy ECO-P3 is not feasible then environmental compensation may be considered.

ECO-P3 Biodiversity offsetting.

(1) Allow biodiversity offsetting where an activity will result in more than minor residual adverse effects on a Significant Natural Area, provided that a biodiversity offset will only

be considered appropriate where adverse effects have been avoided, to the extent practicable, and then remedied or mitigated in accordance with the hierarchy established in Policy ECO-P2; and

- (a) The biodiversity offset is consistent with the framework detailed in APP3 – Biodiversity offsetting; and
- (b) The biodiversity offset can achieve no net loss, and preferably a net gain, of indigenous biodiversity:
 - (i) Preferably in the affected area of Significant Natural Area; or
 - (ii) Where that is not practicable, in the ecological district in which the affected area of Significant Natural Area is located; and
- (c) Recognising that there are limits to the appropriate use of biodiversity offsetting, including because of the irreplaceability or vulnerability of the biodiversity affected.

The following apply to activities outside of SNAs

ECO-P9 Management hierarchy.

- (1) Recognise and protect indigenous biodiversity outside Significant Natural Areas using the following hierarchy by:
 - (a) Avoiding the significant adverse effects of vegetation clearance and the disturbance of habitats in the first instance;
 - (b) Remedying any effects that cannot be avoided; then
 - (c) Mitigating any effects that cannot be remedied; and
 - (d) After remediation or mitigation has been undertaken, offset any significant residual adverse effects in accordance with Policy ECO-P10.

ECO-P10 Biodiversity offsetting.

- (1) Allow for a biodiversity offset to be offered by a resource consent applicant where:
 - (a) An activity will result in significant residual adverse effects to indigenous vegetation or habitat outside a Significant Natural Area; and
 - (b) The biodiversity offset is consistent with the framework detailed in APP3 – Biodiversity offsetting.

Appendix 2: District rule assessment

A: Proposed DP Decisions Version

Rule	Activity	Assessment	Determination
ECO-R1 Permitted	Earthworks for conservation activities, water reticulation for farming purposes or the maintenance of existing tracks, fences or drains within a Significant Natural Area provided they are not within a kauri root zone.	Relevant to the compensation area for offsite mitigation	Does not apply, see ECO-R3, earthworks are for purposes other than those stated.
ECO-R3 Restricted discretionary	Earthworks in a Significant Natural Area for purposes other than the maintenance of existing tracks, fences or drains.	Earthworks not needed within the bounds of the SNA other than for planting natives. Fencing, planting and weed control has already been undertaken but did not involve earthworks inside the SNA.	Minor earthworks in the SNA compensation area for planting natives. Insignificant effects.
ECO-R4 to ECO-R10	Vegetation clearance within a Significant Natural Area	No vegetation clearance proposed within the SNA	Does not apply
ECO-R11 Restricted discretionary activity	Vegetation clearance outside a Significant Natural Area.	Clearance of riparian vegetation	Clearance of 3327.5 m ² of indigenous scrub and trees, including native understory in the fill area require R_DIS consent.
ECO-R12	Vegetation clearance outside a Significant Natural Area on Maaori Freehold Land and Maaori Customary Land	Land is not this tenure	Does not apply
ECO-R13	Outside a Significant Natural Area, indigenous vegetation clearance associated with gardening.	Activity not for gardening	Does not apply
ECO-R14 Permitted	Vegetation clearance of non-indigenous species outside a Significant Natural Area.	Clearance within fill areas of non-native species. The fill area includes areas of exotic trees with indigenous species understory.	Consent not required to clear non-indigenous species. Clearance of indigenous species under exotic trees outside an SNA requires R_DIS consent. Applies to the understory of the redwood trees or other exotic trees.
ECO-R15 Permitted	Clearance of manuka or kanuka outside a Significant Natural Area to maintain productive pasture or for domestic firewood purposes	These species are among areas of secondary scrub that will be cleared to create a fill site. Purpose is not to maintain productive	Permitted activity status does not apply – not for pasture or firewood. Clearance of manuka and kanuka requires R_DIS consent.

		pasture or for domestic firewood purposes.	
ECO-R16 Restricted discretionary	Indigenous vegetation clearance outside a Significant Natural Area for any reason not specified in Standards ECO-R11 to ECO-R15	Applies to all indigenous vegetation clearance in the fill area (including in wetlands) – no permitted activities apply	Clearance of indigenous scrub and self-established indigenous understory of exotic trees requires RDIS consent.
INF-R9 Restricted discretionary	Removal of vegetation or trees associated with infrastructure, is a restricted discretionary activity.	May apply to some areas of clearance for access ways	R_DIS likely applies to at least some of the vegetation to be cleared, can be bundled with the ECO_R16 consent requirement.

B: Operative DP

PERMITTED	RESOURCE CONSENT	Activity triggering need for consent and assessment
25.43A <u>Indigenous vegetation</u> clearance		
25.43A.1 <u>Vegetation clearance</u> of <u>indigenous vegetation</u> or habitat of indigenous fauna is a permitted activity if: (i) it is for the following purposes managing, maintaining or harvesting existing production forests including under-storey clearance and fire break maintenance or fire risk management, or (ii) replanting a production forest or establishing a new land use within 5 years of production forest harvesting on the site, or (iii) harvesting indigenous timber under a Sustainable Management Plan or Permit (under the Forests Act 1949) or (iv) removing vegetation that endangers human life or existing buildings or structures, or poses a risk to the integrity of, the safe use of, or access to existing network utilities, or (v) maintaining or reinstating productive pasture, tracks and fences through the removal of manuka and / or kanuka and / or treeferns that are more than 10m from a water body and less than 15 years old or less than 5m in height and any under-storey under such manuka or kanuka or treeferns growing on land that was previously in productive use, or (vi) stream or river crossings or the formation of farm drains [2], or (vii) a <u>building platform</u> for a permitted or approved building, or structure(s), or access or gathering of plants in accordance with Maori custom and values up to 3,000m ² or 1% of <u>contiguous indigenous vegetation</u> or habitat of indigenous fauna, whichever is the lesser, per <u>contiguous</u> area per site within any 3-year period, or (viii) conservation fencing to exclude stock or pests, or (b) the Council certifies that the vegetation to be cleared is not significant <u>indigenous vegetation</u> or significant habitat of indigenous fauna.[3]	25.43A.2 Any activity that does not comply with a condition for a permitted activity is a restricted discretionary activity. Discretion restricted to: <ul style="list-style-type: none"> • effects on landscape values • effects on ecological values • effects on significant <u>indigenous vegetation</u> and habitat • effects on amenity values • effects on natural character of water bodies and the coastal environment • remediation or mitigation measures • effects on social, cultural and economic wellbeing • relocation of species. 	Clearance of vegetation within the fill areas: (i)(iii)(iv) do not apply – activity is for land/clean fill (ii) does not apply - the pines were harvested between Mar and Sept 2015. The application was received outside of the 5-year period to clear indigenous vegetation for an alternative land use Triggers R_DIS activity status. See assessment in Table 1. Does not apply to the indigenous vegetation under the redwood trees (see ODP definition of vegetation clearance).

Appendix 3: Assessment of Effects

The EIA prepared by Boffa Miskell 14 November 2019 states that.

Within the footprint of the proposed new land-use, areas of gorse-dominated or native broadleaved early successional scrub, exotic forest/treeland, wetland vegetation and pasture grassland were identified.

The proposed new fill areas provide a range of different habitats that may be utilised by a variety of native fauna species. This includes but is not limited to; herpetofauna species such as copper skink; Threatened or At Risk bird species utilising wetland or ungrazed grassland habitat features on the Site; the Threatened – Nationally Critical long-tailed bat likely utilising vegetation on the Site for commuting, foraging and/or roosting; and shortfin eels that have been observed in the three identified wetland areas.

The proposed change in land-use will result in the staged removal of:

- *Large areas of gorse-dominated early successional scrub;*
- *Large areas of pasture grassland;*
- *A notable proportion of native broad-leaved early successional scrub including the occasional large native tree;*
- *Two small areas of exotic forest/treeland;*
- *1,530 m² wetland habitat present on site;*
- *525 m ephemeral waterway; and*
- *90 m intermittent waterway.*

The habitat loss outlined above will result in the loss of associated habitat for herpetofauna, bird, bat and freshwater fauna habitat.

The EIA concludes (s 5.4) that “Native and exotic forest stands and wetland features within the site have been assessed as of high or very high potential value for herpetofauna, avifauna and bats under EIANZ guidelines (2018), and meet significance criteria outlined in the Waikato Operative District Plan significance criteria.” But recommend fauna surveys to “provide a more accurate assessment of the vegetation habitat value and significance.”

With the exception of lack of bat and lizard fauna surveys (due to the seasonal constraints of the Boffa Miskell field assessments as expressed in the EIA), and quantification of the areas of terrestrial vegetation that will be cleared, the EIA methodology is sound and reasonably comprehensive. Their ecological assessment methods are well-recognised in New Zealand.

In general, I agree with the broad scale and list of impacts described in the EIA, however there should have been quantification of affected areas of vegetation in Table 15: Summary of potential effects on vegetation, to fairly assess compensation offered. This has been adequately provided in a later report by Envoco (September 2022).

Terrestrial vegetation

The EIA describes, but does not map or quantify, areas of terrestrial vegetation that will be impacted by the proposed activities. Most of the affected vegetation is dominated by exotic species, although some may have self-established indigenous vegetation beneath a canopy of exotic trees. The EIA also notes the presence of native broadleaved early successional

scrub, which includes scattered mature canopy trees (likely remnant trees around which indigenous scrub has regenerated). These occur within the footprints of Fill Areas 2 and 4.

A later assessment by Envoco (September 2022) assessed and quantified the extent of terrestrial vegetation expected to be impacted by the proposal. Having compared with recent aerial images I am comfortable that their assessment is robust and that the compensation works will result in no net loss of terrestrial vegetation and habitat.

Herpetofauna

Copper skink (*Oligosoma aeneum*) were considered by Boffa Miskell to be likely present in areas of Secondary Podocarp-broadleaf forest, although that habitat is not anticipated to be affected by this application, as the EIA notes in footnote 1 “*The proposal initially included an additional potential fill site, referred to as Site 1, which has now been omitted from the proposal.*” When the EIA was prepared this species was classified as Not Threatened. Their status was revised in 2021 to At Risk-Declining²². No lizard surveys were conducted for the EIA due to seasonal constraints, and they may be present within areas of terrestrial vegetation proposed for clearance. Given the increased threat status of this species, and requirements under the Wildlife Act 1953, pre-activity search and salvage is recommended, and may be legally required. Capture and relocation has been used in other developments in New Zealand, however there needs to be a suitable location to relocate the individuals to.

It is recommended that a lizard salvage and mitigation plan be developed and implemented as a condition of consent. This should include post-translocation monitoring and proposed predator control.

Native bats

A bat survey was conducted by Wildland Consultants Ltd in 2019 and confirmed the presence of Nationally Critical long-tailed bats (*Chalinolobus tuberculatus*) in Fill Area 4, and potentially present in other potentially affected areas.

A bat management plan was prepared by Wildland Consultants in February 2020. The BMP is detailed and sound, my only comments are relatively minor:

- a) it should specifically state in s5.4 that acoustic monitoring will take place in the appropriate season (1 October-30 April, inclusive).
- b) It should include in annual monitoring (s6.3), checks on, and if necessary adjustments to, the tree bands above and below the artificial roosts to account for tree girth growth and maintain predator exclusion.
- c) It should specify the mechanism that will be pursued to protect, in perpetuity, a bat reserve utilising exotic pines.

Avifauna

The EIA noted use of the site by common bird species, and that matches my casual observations during the site visit. Some habitat will be lost, but if clearance activities are conducted outside of breeding season, if possible, it is unlikely that any indigenous birds will

²² Rod Hitchmough, Ben Barr, Carey Knox, Marieke Lettink, Joanne M. Monks, Geoff B. Patterson, James T. Reardon, Dylan van Winkel, Jeremy Rolfe and Pascale Michel. 2021. Conservation status of New Zealand reptiles, 2021. NEW ZEALAND THREAT CLASSIFICATION SERIES 35. Published by Department of Conservation Te Papa Atawhai, Wellington.

be directly fatally affected, and the proposed offsite planting of terrestrial vegetation will compensate for their habitat loss.

The wetlands affected by the proposal are very small and exposed to predators, and therefore unlikely to be successful breeding sites for wetland avifauna. However, as with terrestrial vegetation clearance, wetland drainage and vegetation clearance activities should ideally take place outside of breeding season, as recommended by the EIA.

Two native species classified as “At Risk” were also observed. A New Zealand pipit was seen in the retired pasture at Fill Area 3 and a Pied Shag was observed flying overhead near Fill Area 2. These transient, non-resident, mobile species are unlikely to be directly impacted by the proposal, however as NZ pipit nest in long grass, they will be potentially at risk of fill operations on an ongoing basis during their nesting seasons, but not as a result of indigenous vegetation clearance.

Wetland vegetation and habitat

The EIA assesses the affected wetland condition as low, but does not provide a correct condition assessment because dominance of native vegetation appears to be based on the areas surrounding, not within, the wetland, for example Fill Area 3 the wetland vegetation condition is described as “*Canopy species replaced by harvested pine*”. The vegetation as described in the EIA for wetlands in Fill Areas 2, 3, and 4 are (or were prior to drainage) dominated by indigenous species, and therefore require restricted discretionary consent for their removal. They also support indigenous fauna including native short-fin eels and indigenous macroinvertebrates, e.g. *Chironomus zealandicus*, an endemic species.

The quantum of wetland loss reported in Boffa Miskell²³ in the footprint of Fill Areas 2, 3, and 4 (1530 m²) is less than that reportedly later mapped by Wildland Consultants (1869 m²)²⁴.

Table 4: Estimates of wetland habitat to be lost as a result of the proposed activities

	EIA Boffa Miskell 2019	Wildland Consultants (reported in Stantec 2021)
Fill Area 2	450 m ²	570 m ²
Fill Area 3	700 m ²	815 m ²
Fill Area 4	380 m ²	484 m ²
Total	1530 m²	1869 m²

In response to a s92 further information request, Kate Madsen (Paua Planning) clarified that the applicant is relying on the area mapped by Wildland Consultants and reported in the Stantec report, i.e. the higher figure of 1869 m² of wetland affected.

Neither figure in Table 3 includes two small areas of indigenous *Carex* sedgeland I saw in the field below the ponds in Fill Areas 2 and 4. These lay immediately downstream of the bunds in FA2 and FA4. These are mentioned but not quantified in the EIA. Revised Erosion &

²³ Boffa Miskell, 2019EIA Appendix 6: Wetland condition features

²⁴ According to a report by Stantec to Gleeson Group, 24 December 2021

Sediment Control Plan documents (version E) show the sediment ponds orientated to sit beyond 10 m of natural wetlands in each of FA2 and FA4, which are likely to be the wetlands I saw in the field.

Prior to unconsented drainage the area of wetland in FA3 would likely have been much greater than the 700 m² reported by Boffa Miskell, as they state that a large part of the 4.2 hectare area²⁵ is relatively regularly inundated and dominated by the native wetland rush *Juncus edgarii*.²⁶ This area was, prior to drainage, likely to have met the WRC criterion for significant wetland, and also the RMA definition of wetland. It would be unlikely to meet the NES pasture exclusion if it was dominated by a native species as described in the EMP, however the drainage occurred prior to release of the NES.

Given the pre-drainage description of Fill Area 3 the total area of wetland lost is likely to be larger than 1869 sqm.

²⁵ 700 sqm is only 1.6% of 42,000 sqm (4.2 ha)

²⁶ EMP, page 11 *“Fill Area 3 covers 4.2 ha within a grazed paddock, a large part of which appears to be relatively regularly inundated. A wetland surrounding an area of shallow open water is located near the middle of the fill area. Edgar’s rush (a native rush species) dominates much the flat paddock, interspersed with patches of rank grass (evidently not recently grazed, but extensively pugged). Wetland vegetation comprises Isolepis proliferata and Edgar’s rush swards surrounding the area of open water.”*

Appendix 4: Figures



Figure 1: Self-established indigenous vegetation beneath the exotic redwood canopy



Figure 2: Wetland planting and weed control zones in Compensation Area 4 (left, from EMP) are outside the boundaries of the Waikato District Plan SNA (right, supplied by Julia Masters, Kinetic, 13 June 2022)



Figure 3: Native swamp millet in Compensation Area 4, Planting Zone 9, photos taken by Karen Denyer, 7 June 2022



Figure 20: Fencing progress around the wetland, looking north-west. March 2022.



Figure 15: Results of willow poisoning and spraying of Mercer grass in the wetland.

9

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Figure 4: Native swamp millet in Compensation Area 4, Planting Zone 9, photos screen shot from Envoco report 2022. Left green foliage March 2022. Right sprayed (no date).

WAIKATO DISTRICT COUNCIL

S42A Report

Appendix J

Geotechnical Assessment Review - Baseline Geotechnical



Project Reference: BGL000052A

29 May 2022

Waikato Regional Council
Private Bag 3038,
Waikato Mail Centre,
Hamilton, 3240.

Attention: Joshua Evans

Geotechnical Review – Huntly Quarry 2022 Managed Fill Consent Application

1 Introduction

Waikato Regional Council are processing an application for resource consent from Gleeson Cox Limited (the applicant), who are proposing a series of overburden disposal areas to support ongoing operations at their Huntly Quarry.

Baseline Geotechnical Limited (BGL) have previously provided technical support at pre-application stage for an earlier application. We understand that the application now incorporates those review comments as well as site specific design reports for two of the fill sites.

WRC have requested a final review of all geotechnical matters relating to the consent application, prior to completion of the planners S42A report and the hearing that is expected to follow. Our scope of works was set out in our offer of service dated 25 May 2022 and is summarized below.

2 Scope of work

1. Read and critically assess the information provided in the AEE, the geotechnical assessment report and the two geotechnical design reports.
2. Prepare a short summary report addressing whether the report is sufficient to address geotechnical related effects on the environment in relation to a resource consent application.

3 Background

BGL has been involved in geotechnical review of supporting documentation for WRC since late 2019, when we provided pre-application review of geotechnical reporting prepared by Gaia Engineers (Gaia).

Our initial review at that time provided a range of items that required additional detail or supporting documentation¹. An ongoing review process followed that is broadly summarized in Appendix 8.4.2 [Geotech Reviewer Table] of the current application document.

Some geotechnical review items remained outstanding at the time the original consent applications were lodged on 18 November 2019 [APP1411283] and 28 November 2019 [LUC0233/20]. These items were subsequently set out in our later S92 review document prepared for WRC², with those comments incorporated into a formal S92 request prepared by WRC.

Gaia issued a response to those S92 requests in January 2020, which is incorporated as Appendix 8.4.3 of the current application. We assessed that information and provided confirmation that it was satisfactory to WRC by email on 4 February 2020 [Appendix A].

We understand that the original applications were withdrawn for reasons unrelated to geotechnical risk/design.

4 April 2022 application

We understand that the applicant has now submitted a revised bundled consent application and requested public notification.

The AEE and application document incorporates much of the historical geotechnical assessment by Gaia and the previous review prepared by BGL. It also now incorporates detailed design reports for fill sites 2 and 3.

We have reviewed the historical information prepared by Gaia and revisited our earlier review comments. We have also overviewed the geotechnical design reports prepared by Gaia, which provide a higher level of design information than would normally be expected at the consenting stage of a project like this.

Our review has confirmed the following:

- The geotechnical assessment report prepared for Fill sites 2, 3 and 4 has not changed substantively since our last review of the project.
- Therefore, our previous review commentary remains valid for this new application.
- The two new geotechnical design reports are consistent with, but provide more detailed construction level information for, Fill sites 2 and 3.

5 Conclusion

Overall, we are satisfied that the geotechnical information provided is consistent with what could be expected of a suitably experienced geotechnical professional. We concur with Gaia's overall view that acceptable levels of stability should be achievable for the proposed fill sites based on the design and monitoring proposed.

¹ Baseline Geotechnical Limited, 2019, Preliminary Geotechnical Review – Huntly Quarry Pre-Application Review. Prepared for Waikato Regional Council, dated 09 October 2019.

² Baseline Geotechnical Limited, 2019A, S92 geotechnical requests – Huntly Quarry Fill Sites 2, 3, and 4. Prepared for Waikato Regional Council, dated 11 December 2019.

6 Applicability

This report has been prepared for the exclusive use of our client Waikato Regional Council, with respect to the particular brief given to us and it may not be relied upon in other contexts or for any other purpose, or by any person other than our client, without our prior written agreement.

We have not independently verified the information contained in the Gaia report.

We trust that this letter report meets your present requirements. If you have any queries or wish to discuss any aspect, please contact the undersigned.

For and on behalf of Baseline Geotechnical Limited



Cameron Lines

Director

Appendix A – BGL email of 4 February 2022

Cameron Lines

From: Cameron Lines
Sent: Tuesday, 4 February 2020 4:30 PM
To: 'Kathryn Drew'
Subject: RE: Gleeson Managed Fill Ltd (APP1411283) - s92 Response Letter & Table
Attachments: WRC s92 Response Table Managed Fill - WRC Responses 4.2.2020.docx

Hi Kathryn,

I have been through and reviewed the additional information supplied by GAIA dated 15 January 2020 (Attachment A of the S92 response).

The items we requested further information on as set out in our letter dated 11 December 2019 in Section 2.1, 2.2 and 2.3 have been adequately addressed in the additional information supplied by GAIA.

The information provided to date along with the ongoing detailed design work to follow consenting indicate that the proposed fill slopes can be constructed within normally accepted risk tolerances for such landforms.

I attach your word document, with our comments included.

I trust this covers those geotechnical aspects of the consenting process. If you have any queries or wish to discuss any aspect please feel free to contact me.

Kind regards
Cameron

Cameron Lines | Principal Engineering Geologist
BSc, MSc (hons), CMEngNZ (PEngGeol), MAusIMM
Baseline Geotechnical Ltd
+64 21 378 269
www.linkedin.com/in/cameronlines
PO BOX 60 383, Titirangi, Auckland 0642

From: Kathryn Drew <kdrew@bbo.co.nz>
Sent: Tuesday, 4 February 2020 2:53 PM
To: Cameron Lines <cameron@baselinegeotechnical.co.nz>
Subject: RE: Gleeson Managed Fill Ltd (APP1411283) - s92 Response Letter & Table

Hi Cameron

Please populate this document, being a consolidation of other people's responses too.
Thanks

Kathryn Drew Senior Planner
BRP(Hons), MNZPI, MRMLA
Bloxam Burnett & Olliver Ltd
A Level 4, 18 London Street, PO Box 9041, Hamilton 3240

WAIKATO DISTRICT COUNCIL

S42A Report

Appendix K

Contaminated Soil Assessment Review - Alan Parkes (Waikato District Council)

Julia Masters

From: Alan Parkes <Alan.Parkes@waidc.govt.nz>
 Sent: Thursday, 12 May 2022 3:09 pm
 To: Wade Hill
 Cc: Julia Masters
 Subject: RE: Technical Input for LUC0488/22 - Managed Fill sites for Gleeson Cox Quarry - Riverview Road, Huntly

Hi Wade & Julia

Sorry for the delay getting back to you on this - I've finally managed to have a look at it

As you said Wade the proposal is pretty much as per the original with 3 fill areas and the comments previously made in respect of the NESCS in LUC0233 remain valid. Fill Area 3 is identified as containing a piece of land as described by regulation 5(7) and the NESCS therefore applies to the soil disturbance activity associated with the site development. A DSI was undertaken identifying elevations of some contaminants above background levels resulting in the proposal being a controlled activity under regulation 9. A Contaminated Site Management Plan has been submitted in respect of this. I note that the AEE states that the CSMP was previously approved although I am not sure of this – I can't recall it and can't see reference to approving it although I may well have. The conditions proposed by me that I found in LUC0233/20 include a condition requiring the submission of a CSMP.

I've reviewed the CSMP and am comfortable with it.

Draft conditions are presented in Appendix 19 but these all appear to relate to the regional council authorisations – I'm not sure if there are any provided for the WDC consent? Most conditions should probably be common – such as the management plans and rehabilitation plan etc. while conditions relating to say noise and the NESCS in particular will be specific to the WDC land use consent.

For the NESCS related conditions I recommend the following:

1. Soil disturbance works shall be undertaken in accordance with the approved Contaminated Site Management Plan (CSMP) '*Contaminated Site Management Plan, Proposed Huntly Managed Fill – Fill Area 3*', prepared by EHS Support, EHS Support Job No: J000103, dated 1 September 2021, or such alternative CSMP submitted to, and approved by, Waikato District Council's Contaminated Land Specialist. The procedures, controls and contingency measures outlined in the CSMP must be implemented for the duration of the soil disturbance works to ensure minimal adverse effects on human health and the environment.
2. All material removed from the site in the course of the soil disturbance works shall be disposed to a suitably licensed facility authorised for receipt of material of that kind.
3. Within three months of soil disturbance works being completed the consent holder shall provide a works completion report to confirm that the methods outlined in the CSMP were enforced for the period required, and that the measures were successful in ensuring the potential risks were adequately managed. The works completion report shall be completed by a suitably qualified and experienced practitioner and include, but not be limited to:
 - (a) Confirmation that the methods described in the CSMP were followed;
 - (b) A summary of the works undertaken including:
 - (i) summary of the earthworks methodology followed;
 - (ii) description of the deposition of soil reused on the site (if any) including location and volume;
 - (iii) volume of soil removed (if any) from the site;

- (c) Details of all soil samples taken, tabulated analytical results and interpretation of results;
- (d) Details of any unexpected contamination encountered during the works and actions taken in respect of this;
- (e) Copies of disposal receipts for any material removed from the site.

Kind regards

Alan Parkes
Contaminated Land Specialist
Waikato District Council

Te Kaunihera aa Takiwaa o Waikato

■ Waea puukoro: 027 275 2486 ■ Nama waea: 0800 492 452

Pouaka Poutaapeta: Private Bag 544, Ngaruawahia 3742

Waahi Mahi: 15 Galileo Street, Ngaruawahia



From: Wade Hill <Wade.Hill@waidc.govt.nz>
Sent: Monday, 2 May 2022 3:49 pm
To: Mel Montesa <Mel.Montesa@waidc.govt.nz>; Alan Parkes <Alan.Parkes@waidc.govt.nz>
Subject: RE: Technical Input for LUC0488/22 - Managed Fill sites for Gleeson Cox Quarry - Riverview Road, Huntly

Good afternoon to you both,
I am just looking at the application now more closely myself - and it appears that they are still applying for the three (3) managed fill sites.

Thanks

Wade

From: Wade Hill
Sent: Monday, 2 May 2022 11:55 am
To: Mel Montesa <Mel.Montesa@waidc.govt.nz>; Alan Parkes <Alan.Parkes@waidc.govt.nz>
Cc: Ngaire Kingsbury <Ngaire.Kingsbury@waidc.govt.nz>; Jessica Thomas <jessica.thomas@waidc.govt.nz>; Julia Masters <julia@kineticenvironmental.co.nz>
Subject: Technical Input for LUC0488/22 - Managed Fill sites for Gleeson Cox Quarry - Riverview Road, Huntly
Importance: High

Hi Mel and Alan,

We have received an application for 2 managed fill sites at this quarry.

You both provided technical input for Nicola Laurenson for the original application (LUC0233/20) – which was for 3 MF sites.

This application was withdrawn and replaced by this new application – LUC0488/22.

Julia Masters from Kinetic Planning is now processing the application for us.

Julia does not have access to P and R or ECM, so all comms on this will need to go via myself and Jess.

I apologise for not tasking this application to you both earlier – that is my fault.

We also took some time to find a replacement planner for Nicola.

This application is being publicly notified now at the request of the applicant.

However, Julia will still need to complete her limited notification assessment prior to this.

It would be appreciated if you could confirm your s.88/s.92 requirements as soon as possible.

Having said that – the application should not be markedly different from the last one, other than it is 2 sites now rather than 3.

You had both completed your reports for that last one – so I am not anticipating any requests.

Many thanks

Wade

Wade Hill

Consents Team Leader

Waikato District Council

Te Kaunihera aa Takiwaa o Waikato

■ Waea whakaahua: 027 2164914 ■ Waea puukoro: 0800 492 452

Poutaapeta Mahi: Private Bag 544, Ngaruawahia 3742

Waahi Mahi: 15 Galileo Street, Ngaruawahia



HIGH CONSEN

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Pre-application services are
The Duty Planner Service h

Head to <https://www.waikatodistri>

Julia Masters

From: Alan Parkes <Alan.Parkes@waidc.govt.nz>
Sent: Wednesday, 19 October 2022 11:07 am
To: Julia Masters
Subject: RE: Technical Input for LUC0488/22 - Managed Fill sites for Gleeson Cox Quarry - Riverview Road, Huntly

Hi Julia

Sorry I've been getting a bit of a barrage of queries in the last week or so.

The information from Paul Vitasovich is certainly interesting given the local knowledge he appears to have. To me the main issue that he appears to be raising is that of the suitability of the area for use as a managed fill in respect of the integrity and stability of the existing material which is outside my area of expertise. The NESCS issues relate to the health risks associated with the disturbance of soil in the area for preparatory works to establish the fill area, particularly with respect to exposure of workers to contaminants that are in the soil and the appropriate disposal of soil. The suitability of the area for the managed fill is more an engineering matter. The submission refers to the drill logs and depth of the tailings and suggests that the contents of the tailing dam will not meet criteria for managed fill. I'm not sure that this is relevant as the existing material at depth, as far as I am aware, does not form part of the activity to be consented. The managed fill under the consent I think is to be deposited on top – ie all the existing tailing material isn't proposed to be removed – although I haven't reviewed the information again – but my understanding is that some excavation will be undertaken to prepare the area to receive the fill. I think the applicant can address this issue.

I do have a comment in regard to the CSMP. My understanding is that the excavated soil is largely considered likely to meet the acceptance criteria for the managed fill and would likely be used in the fill. Some additional sampling may be required as identified. The CSMP section 5.2.2 requires excavated/stripped soil to be loaded directly onto trucks and that it must not be stockpiled unless the loading is in an area where runoff and spills cannot be controlled. If the excavated material from the development work is to be placed in the managed fill I am uncertain how this can be achieved if it is not stockpiled/stored until such time as the development work has been completed and the fill area is ready for receiving fill material. Perhaps this could be clarified. If it is to be stockpiled for future deposition in the fill then the controls in section 5.2.3 are likely to be implemented although I think that with this scale a specific plan of the stockpiling area should be developed. Again EHS Support may like to comment on this.

Kind regards

Alan Parkes
Contaminated Land Specialist

Waikato District Council

Te Kaunihera aa Takiwaa o Waikato

■ Waea puukoro: 027 275 2486 ■ Nama waea: 0800 492 452

Pouaka Poutaapeta: Private Bag 544, Ngaruawahia 3742

Waahi Mahi: 15 Galileo Street, Ngaruawahia



From: Julia Masters <julia@kineticenvironmental.co.nz>
Sent: Monday, 17 October 2022 12:10 pm
To: Alan Parkes <Alan.Parkes@waidc.govt.nz>
Subject: RE: Technical Input for LUC0488/22 - Managed Fill sites for Gleeson Cox Quarry - Riverview Road, Huntly

Hi Alan

Just checking in to see if you have had a chance to look at those submissions? Are there any additional comments you want to make? I'm in the middle of writing my report and need to have it completed this week.

Thanks,

Julia Masters
Senior Planner

027 4136 085
julia@kineticenvironmental.co.nz



Kinetic Environmental Consulting Limited
Level 1, 71 London Street, Hamilton 3204
PO Box 9413, Hamilton 3240
kineticenvironmental.co.nz

From: Julia Masters
Sent: Tuesday, 11 October 2022 11:48 am
To: Alan Parkes <Alan.Parkes@waidc.govt.nz>
Subject: RE: Technical Input for LUC0488/22 - Managed Fill sites for Gleeson Cox Quarry - Riverview Road, Huntly

Hi Alan

Thanks for chatting to me just now.

As discussed, we are heading to a hearing for this consent (28 – 30 November 2022) and I'm in the process of writing my s42A report. Could you put this date in your diary as there is a chance we might need you to be available if the commissioners have any questions of relevance.

Below are your initial comments and I've attached an email chain which includes comments from you from September last year, when the PSI and DSI was provided for the now withdrawn application. The PSI/DSI was provided with this re-lodged application along with the CSMP. I don't have access to Council's system but you should be able to view the CSMP here: <https://1drv.ms/b/s!BIVMFpGqYGjJkAHM0BsMVTf7KnA6?e=cTeegp>

We received two submissions (attached) which refer to matters relevant to soil disturbance within FA3 and the associated effects. In particular see pages 3 and 4 of the submission from Paul Vitasovich. The submission from Nicola Maplesden only make a brief comment (see page 4). Could you take a look and let me know if there are any additional comments that you want to make? The applicant has been provided with a copy of all submissions so I expect that they will address this in their evidence.

Happy to chat further as required.

Kind regards,

Julia Masters
Senior Planner

027 4136 085

julia@kineticenvironmental.co.nz

KINETIC
ENVIRONMENTAL

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From: Alan Parkes <Alan.Parkes@waidc.govt.nz>

Sent: Thursday, 12 May 2022 3:09 pm

To: Wade Hill <Wade.Hill@waidc.govt.nz>

Cc: Julia Masters <julia@kineticenvironmental.co.nz>

Subject: RE: Technical Input for LUC0488/22 - Managed Fill sites for Gleeson Cox Quarry - Riverview Road, Huntly

Hi Wade & Julia

Sorry for the delay getting back to you on this - I've finally managed to have a look at it

As you said Wade the proposal is pretty much as per the original with 3 fill areas and the comments previously made in respect of the NESCS in LUC0233 remain valid. Fill Area 3 is identified as containing a piece of land as described by regulation 5(7) and the NESCS therefore applies to the soil disturbance activity associated with the site development. A DSI was undertaken identifying elevations of some contaminants above background levels resulting in the proposal being a controlled activity under regulation 9. A Contaminated Site Management Plan has been submitted in respect of this. I note that the AEE states that the CSMP was previously approved although I am not sure of this – I can't recall it and can't see reference to approving it although I may well have. The conditions proposed by me that I found in LUC0233/20 include a condition requiring the submission of a CSMP.

I've reviewed the CSMP and am comfortable with it.

Draft conditions are presented in Appendix 19 but these all appear to relate to the regional council authorisations – I'm not sure if there are any provided for the WDC consent? Most conditions should probably be common – such as the management plans and rehabilitation plan etc. while conditions relating to say noise and the NESCS in particular will be specific to the WDC land use consent.

For the NESCS related conditions I recommend the following:

1. Soil disturbance works shall be undertaken in accordance with the approved Contaminated Site Management Plan (CSMP) '*Contaminated Site Management Plan, Proposed Huntly Managed Fill – Fill Area 3*'; prepared by EHS Support, EHS Support Job No: J000103, dated 1 September 2021, or such alternative CSMP submitted to, and approved by, Waikato District Council's Contaminated Land Specialist. The procedures, controls and contingency measures outlined in the CSMP must be implemented for the duration of the soil disturbance works to ensure minimal adverse effects on human health and the environment.
2. All material removed from the site in the course of the soil disturbance works shall be disposed to a suitably licensed facility authorised for receipt of material of that kind.
3. Within three months of soil disturbance works being completed the consent holder shall provide a works completion report to confirm that the methods outlined in the CSMP were enforced for the period required, and

that the measures were successful in ensuring the potential risks were adequately managed. The works completion report shall be completed by a suitably qualified and experienced practitioner and include, but not be limited to:

- (a) Confirmation that the methods described in the CSMP were followed;
- (b) A summary of the works undertaken including:
 - (i) summary of the earthworks methodology followed;
 - (ii) description of the deposition of soil reused on the site (if any) including location and volume;
 - (iii) volume of soil removed (if any) from the site;
- (c) Details of all soil samples taken, tabulated analytical results and interpretation of results;
- (d) Details of any unexpected contamination encountered during the works and actions taken in respect of this;
- (e) Copies of disposal receipts for any material removed from the site.

Kind regards

Alan Parkes
Contaminated Land Specialist

Waikato District Council

Te Kaunihera aa Takiwaa o Waikato

■ Waea puukoro: 027 275 2486 ■ Nama waea: 0800 492 452

Pouaka Poutaapeta: Private Bag 544, Ngaruawahia 3742

Waahi Mahi: 15 Galileo Street, Ngaruawahia



From: Wade Hill <Wade.Hill@waidc.govt.nz>

Sent: Monday, 2 May 2022 3:49 pm

To: Mel Montesa <Mel.Montesa@waidc.govt.nz>; Alan Parkes <Alan.Parkes@waidc.govt.nz>

Subject: RE: Technical Input for LUC0488/22 - Managed Fill sites for Gleeson Cox Quarry - Riverview Road, Huntly

Good afternoon to you both,

I am just looking at the application now more closely myself - and it appears that they are still applying for the three (3) managed fill sites.

Thanks

Wade

From: Wade Hill

Sent: Monday, 2 May 2022 11:55 am

To: Mel Montesa <Mel.Montesa@waidc.govt.nz>; Alan Parkes <Alan.Parkes@waidc.govt.nz>

Cc: Ngaire Kingsbury <Ngaire.Kingsbury@waidc.govt.nz>; Jessica Thomas <jessica.thomas@waidc.govt.nz>; Julia Masters <julia@kineticenvironmental.co.nz>

Subject: Technical Input for LUC0488/22 - Managed Fill sites for Gleeson Cox Quarry - Riverview Road, Huntly

Importance: High

Hi Mel and Alan,

We have received an application for 2 managed fill sites at this quarry.

You both provided technical input for Nicola Laurenson for the original application (LUC0233/20) – which was for 3 MF sites.

This application was withdrawn and replaced by this new application – LUC0488/22.

Julia Masters from Kinetic Planning is now processing the application for us.
 Julia does not have access to P and R or ECM, so all comms on this will need to go via myself and Jess.
 I apologise for not tasking this application to you both earlier – that is my fault.
 We also took some time to find a replacement planner for Nicola.
 This application is being publicly notified now at the request of the applicant.
 However, Julia will still need to complete her limited notification assessment prior to this.
 It would be appreciated if you could confirm your s.88/s.92 requirements as soon as possible.
 Having said that – the application should not be markedly different from the last one, other than it is 2 sites now rather than 3.
 You had both completed your reports for that last one – so I am not anticipating any requests.
 Many thanks
 Wade

Wade Hill
 Consents Team Leader
 Waikato District Council
 Te Kaunihera aa Takiwaa o Waikato
 ■ Waea whakaahua: 027 2164914 ■ Waea puukoro: 0800 492 452
 Poutaapeta Mahi: Private Bag 544, Ngaruawahia 3742
 Waahi Mahi: 15 Galileo Street, Ngaruawahia



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WAIKATO DISTRICT COUNCIL

S42A Report

Appendix L

Land Development Engineer Report – Beca

Applicant	Gleeson & Cox Ltd
Application Number	LUC0488/22
Property Location	310 Riverview Road, Huntly
Technical Input by	Anna Kostiuk-Warren
Date	13/10/2022

I. Technical Assessment of Application Gaps: Stormwater and Erosion & Sediment Control

Stormwater

As previously noted prior to public notification, the applicant appears not to have engaged a stormwater engineer to make a stormwater assessment for the proposal. I consider this to be a gap in the application and do not believe that the applicant has adequately assessed the below issues:

- The downstream environment. I refer to erosion and scour risk resulting from an increase in flow at the sediment retention ponds (SRPs) outlets and the clean water diversion channels that act to concentrate flows. The erosion and sediment control plan (ESCP) specified that outlet protection will be installed at all outlets and inlets, however this does not necessarily equate to downstream protection without further detail and assessment. I would expect the applicant to evaluate the likelihood of downstream erosion and scour, based on the current state of both watercourses and the expected increase in channel flow. At the very least rip rap will be needed at outlets. It is possible for this to be partially addressed through a consent condition, including implementing a scour monitoring program of the downstream areas and a condition to remediate scour.
- The applicant has noted that there will be some attenuation effect provided by the SRPs. More detail on this is required which could be in the form of a catchment analysis, for existing and for active filling scenarios. It is likely that this will be acceptable but needs to be assessed by the applicant nonetheless.
 - I have undertaken a brief percentage contribution calculation of the Fill area catchments to the larger catchments that drain to the lake and river. Fill Area 2 contributes 2% of the catchment draining to Lake Puketirini, and Fill Area 4 is contributes 13% of the catchment draining into the Waikato River.
- The effects of climate change in the design of diversion channels and the SRPs. This must be included in future detailed design regardless of the temporary nature of the structures. The time horizon can be scaled to the design life of the devices.

In addition to the above, I do not feel that the applicant has provided sufficient information on the treatment and holding of stormwater discharged from the acid sulphate treatment area. The gaps are:

- Whether climate change factors were included for sizing. This is still required even if the pond is designated to be a temporary structure. Again, set to a horizon matching the design life involved.
- The expected discharge rate and route the treated water will take back to the quarry pit. No comment was provided on whether attenuation is required, channel or pipe grading and erosion/sediment protection at inlet and outlet structures.
- No contingency procedures were supplied in the report i.e. what happens if the soil is over-dosed? How will pH be corrected soil/runoff becomes too alkaline? pH can have a strong effect on the ionic availability of a range of chemicals to sediment; poor management could cause the dispersion of contaminated water as surface runoff.
- Why was the quarry pit selected as a suitable discharge point for treated runoff? Was the potential for pumping to the SRPs considered?

Note that water management from the acid sulphate treatment area crosses directly into environmental science which is not strictly the responsibility of Beca nor perhaps WDC to assess. However, I feel that the connection with stormwater management justifies further explanation of the above concerns.

Erosion and Sediment Control

The sediment retention ponds, in combination with extensive monitoring of both the pond itself and the downstream environment, means it is unlikely that degradation in the water quality in the downstream tributaries. Furthermore, one of the greatest risks to downstream water quality is increased sediment inputs. The likelihood of this is significantly decreased by using sediment retention ponds with chemical flocculation treatment.

Clarification is required with the sizing of the dirty water catchments. The maximum catchment sizes for Fill areas 2 and 4 are larger than the catchment sizes used to determine volumes for the sediment retention ponds.

Table 1: Catchment sizes discrepancies.

Fill Area	Maximum catchment, dirty water (Table 2 from ESCP rev D)	SRP designed catchment
2	4.5ha	3ha
4	5.21ha	4.40ha

Otherwise I have no other significant concerns regarding the submitted ESCP.

2. Response to Hearing Submissions: Technical Input for Stormwater and Erosion & Sediment Control

Please find below commentary on the submissions. Multiple submissions have the same or similar concerns, so these were compiled, and individual submitters identified. I believe all submissions can be adequately addressed if the applicant provides further information or agrees to additional conditions as discussed in Section 1.

Table 2: Stormwater related submissions.

Name/s of submitters	Concern	Technical response
Dorothy Claire Molloy, Anthony Ernest Perkins, Denise Phyllis Lamb, Wayne Robert Rutherford, Paul Vitasovich, Nola Dawn Moland, Bryce & Carla Mounsey, Colleen Earby, Jessica Rix, Leanne Ralph & Andrew Parkin, Emily Joy Thomas, David Whyte - on behalf of Huntly Community Board, Nicola Anne Maplesden, Te Kauri Marae Trust, Arthur & Esmee Baylis, Andrea Dickinson, Jennifer Lee Molloy, Alan & Bronwyn Kosoof	Downstream water quality & hydraulic effects (primarily Lake Puketirini and also Waikato River),	The applicant proposes two sediment retention ponds (SRPs). They have provided extensive monitoring details with a surface water sampling analysis plan and SRP efficiency monitoring. The applicant has not provided an assessment of downstream catchment changes resulting from increased flows.
Garry & Audrey Cox	On site run off quality control	The applicant has provided good information around the diversion of clean and dirty water. Robust monitoring plans will be put in place.
Paul Vitasovich, Appollonia Johnston	Downstream erosion & sediment release, increased rainfall resulting from climate change,	The applicant has provided sufficient commentary regarding the protection of outlet structures & diversion channels, however the likelihood of downstream erosion was not assessed. Sediment will be controlled via SRPs, which will be removed and blended back into the managed fill. The applicant has not considered the effects of climate change within their proposal.
Colleen Earby, David Whyte - on behalf of Huntly Community Board, DOC - Penny Nelson, Kathie Shepard, Robert Hunt	Flooding from river resulting from increased discharge, water table changes	A brief analysis of contributing catchments shows that both fill areas contribute less than 10% to the whole catchment. This suggests that downstream hydraulic characteristics are unlikely to change. However I recommend that the applicant undertake a catchment analysis to confirm this. A hydrogeologist will need to provide comments on changes to the water table.
Lorrel & Alex Mowles, Appollonia Johnston	Runoff from road to river	The applicant has provided a dust management plan that recommends the use of a wheel wash to prevent dust tracking and therefore any sediment laden runoff from the site entrance. My assessment is only concerned with the proposed fill areas.

Table 3: Erosion & Sediment Control related submissions.

Name/s of submitters	Concern	Technical response
Paul Vitasovich	Adequacy of SRP volume and use of liners (synthetic and clay)	SRPs are typically not lined however the embankments are required to be constructed from engineered fill and must be fully stabilised before commissioning of the pond. In addition to this, the use of clay can increase the adsorption of contaminants to particles. This would require an increase in the use of chemical flocculants.

WAIKATO DISTRICT COUNCIL

S42A Report

Appendix M

Suggested Consent Conditions

APPENDIX M - SUGGESTED CONSENT CONDITIONS

General

- 1 The managed fill and overburden disposal activities shall be undertaken in general accordance with the information and plans submitted by the Consent Holder in support of application number LUC0488/22 and officially received by Council on 14 April 2022 and XXX except as amended by the conditions below. Copies of the approved plans are attached. In the case of inconsistency between the application and the conditions of this consent, the conditions of consent shall prevail.

The following technical documentation was received in support of the application and the activity shall be operated in general accordance with the following documents unless otherwise altered by these consent conditions:

- (a) XXX
- 2 The managed fill and overburden disposal activities shall operate with the following limitations:
- (a) The total volume of fill material deposited at the site shall not exceed 300,000m³ per annum.
- 3 Pursuant to Section 36 of the Resource Management Act 1991 the Consent Holder shall pay the actual and reasonable costs incurred by the Waikato District Council when monitoring the conditions of this consent.
- 4 The Consent Holder shall notify Waikato District Council's Team Leader Monitoring, in writing, at least ten working days prior to the commencement of any activities associated with this consent. Such notification shall include the following details:
- (a) Name/s and telephone number/s of the Developer's Representative/s;
 (b) Site address to which the consent relates;
 (c) the Waikato District Council land use consent reference number; and
 (d) the works to be undertaken.

Prior to Commencement

- 4 The consent holder shall engage with the iwi and ensure that the iwi is notified in writing at least 10 working days prior to any soil disturbance occurring; and that the iwi is invited to act as cultural monitors to observe all topsoil removal at the site on an ongoing basis as each stage of works progresses.
- 5 The consent holder shall arrange and conduct a pre-construction site meeting and invite, with a minimum of 10 working days notice, the Waikato District Council, the iwi, the contractor, and any other party representing the consent holder prior to any work authorised by this consent commencing on site.

- 6 Prior to commencement of any work within each Fill Area, the consent holder must submit evidence to Waikato District Council's Team Leader-Monitoring that the Erosion and Sediment Control Plan for the applicable Fill Area has been certified by the Waikato Regional Council.
- 7 The consent holder is to install and maintain erosion and sediment control measures in accordance with the Erosion and Sediment Control Plans certified by Waikato Regional Council prior to undertaking any soil disturbing activity.
- 8 Prior to commencement of any work within each Fill Area, the consent holder must submit evidence to Waikato District Council's Team Leader-Monitoring that the Dust Management Plan for the applicable Fill Area has been certified by the Waikato Regional Council.
- 9 The consent holder is to install and maintain dust management measures in accordance with the Dust Management Plan certified by Waikato Regional Council prior to undertaking any soil disturbing activity.
- 10 The consent holder must enter into a section 108 Resource Management Act 1991 covenant in favour of Waikato District Council. The consent holder shall contact Council to initiate the preparation of the covenant. A copy of the updated Computer Register (Record of Title) showing the covenant has been registered must be provided to Council prior to the commencement of any vegetation removal.
- 11 The covenant must:
 - (a) Effectively protect, in perpetuity, the ecological mitigation / compensation areas to be restored in accordance with the Ecological Management Plan certified pursuant to condition 18 of this consent;
 - (b) Set out that the clearance of vegetation, grazing of stock and earthworks within the covenant area is prohibited;
 - (c) Be drafted by the Council's nominated solicitor at the consent holder's cost;
 - (d) Be registered against the Computer Register(s) (record of title) to the affected land by the consent holder, at the consent holder's cost;
 - (e) Require the consent holder to be responsible for all legal fees, disbursements and other expenses incurred by Council in connection with the preparation and registration of the covenant, and procure its solicitor to give an undertaking to the Council for payment of the same.

Site and Fill Management Plan

- 12 Prior to the commencement of activities authorised by this consent, the consent holder shall prepare and submit to Waikato District Council's Team Leader-Monitoring for certification, a Site and Fill Management Plan (SFMP).

The SFMP has the objective of setting out practices and procedures to be undertaken which demonstrate how the site and operations will be managed to ensure that any actual or potential adverse effects are avoided, remedied or mitigated.

The SFMP shall include, but not be limited to, the following matters:

- (a) details on the procedures and standards necessary to demonstrate how compliance will be achieved with the relevant conditions of this resource consent;
- (b) Provision for approval of geotechnical design for each Fill Area to be certified by Waikato District Council before commencement of works.
- (c) Measures to ensure that:
 - i. all land use activities, including the construction of new buildings/structures, earthworks, fences, any operation of mobile plant and/or persons working near exposed line parts shall comply with the New Zealand Electrical Code of Practice for Electrical Safe Distances (NZECP 34:2001) or any subsequent revision of the code.
 - ii. all machinery and mobile plant operated in association with the works shall maintain a minimum clearance distance of 4 metres from the conductors (wires) of the HAM-MER-B National Grid transmission lines at all times.

- 13 The consent holder shall exercise this consent in accordance with the SRMP certified in Condition 12. Any subsequent changes to the SRMP must only be made with the written approval of Waikato District Council's, Team Leader, Monitoring. In the event of any conflict or inconsistency between the conditions of this consent and the provisions of the SRMP, then the conditions of this consent shall prevail.

Riverview Road Shoulder Repairs

- 14 Prior to the commencement of works authorised by this consent, the Consent Holder shall prepare and submit to the Waikato District Council's Senior Land Development Engineer for certification, a detailed design of the Riverview Road shoulder repairs and line marking. The detailed design shall be prepared by a suitably qualified and experienced professional and shall include the following:
- (a) Repair of damaged pavement and surfacing in the Riverview Road shoulders, opposite and adjacent to the site. The purpose of the reinstatement is to prevent ponding in the shoulders and along the seal joint between the traffic lanes and the sealed shoulders and to reduce the need for ongoing maintenance.
 - (b) Details of the pavement and surfacing and extent including tie ins to existing.
 - (c) Details of the line marking for 200m (north and south) of the vehicle crossing, including:
 - i. New diagonal shoulder markings in the 6m wide left turn in approach shoulder in accordance with MOTSAM Part 2 Markings 2.04.02
 - ii. New diagonal shoulder markings in the left turn out shoulder, adjacent to the edgeline at the vehicle crossing and where it merges north of the power pole, in accordance with MOTSAM Part 2 Markings 2.04.02
 - iii. New 2.5m wide diagonal shoulder markings in the sealed shoulder opposite, in accordance with MOTSAM Part 2 Markings 2.04.02
 - iv. No stopping lines in accordance with MOTSAM Part 2 Marking, 2.11.01
 - v. 200mm wide edgelines and continuity lines

- vi. Remarking of the right turn bay and centrelines

Vehicle Access Layout Plan

- 15 Prior to the commencement of works authorised by this consent, the Consent Holder shall prepare and submit to the Waikato District Council's Senior Land Development Engineer for certification, a Vehicle Access Layout Plan, prepared by a suitably qualified and experienced professional, which identifies the layout plan and swept paths to confirm that the vehicle crossing and internal access roads are sufficient to provide two way operation over a minimum of 60m from the edgeline of the nearest lane on Riverview Road.

Site Circulation and Loading Management Plan

- 16 Prior to the commencement of works authorised by this consent, the Consent Holder shall prepare and submit a Site Circulation and Loading Management Plan (SCLMP), prepared by a suitably qualified and experienced professional, to Waikato District Council's Senior Land Development Engineer for certification.

The objective of the (SCLMP) is to demonstrate that the fill operation will be managed to avoid any impacts on Riverview Road such as queuing or parking within the widened shoulders. The (SCLMP) shall include, but not be limited to the following:

- (a) Demonstrate swept paths of opposing truck manoeuvres through the gate and within the site. This should include vehicle tracking for trucks not traveling over the weighbridge
- (b) Demonstrate how inbound trucks will be prioritised at the weighbridge
- (c) Identify holding/waiting areas within the site for trucks waiting for the weighbridge
- (d) Identify stopping areas within the site for trucks to cover/uncover trailer tarpaulins/load covers
- (e) Documenting how truck driver behaviour will be managed to ensure that queuing/waiting does not occur within the Riverview Road shoulders and to direct drivers to appropriate areas within the site
- (f) A requirement that removal and replacement of trailer tarpaulins/load covers to be completed within the site.
- (g) Identify triggers/ timing for the installation and implementation of the second weighbridge

Traffic Noise Management Plan

- 17 Prior to the commencement of works authorised by this consent, the Consent Holder shall submit a Traffic Noise Management Plan (TNMP) prepared by a suitably qualified and experienced professional, to Waikato District Council's Team Leader-Monitoring for certification. The TNMP shall identify safe operational parameters and the means by which traffic safety and efficiency effects will be managed and mitigated to avoid off-site traffic noise effects as far as practicable.

The TNMP shall include, but not be limited to the following details:

- (a) Description of operational procedures and monitoring that will be implemented to record and monitor truck movements and safety and performance of the public road
- (b) Include a code of conduct for drivers of vehicles and visitors to the site, including ensuring all heavy vehicle operators are aware of the operating limits of the site
- (c) Include details of measures to prevent drivers from exceeding operating limits
- (d) Include details of measures to be used to deter drivers from using engine brakes when approaching or leaving the site

Ecological Management Plan

18 Prior to the commencement of works authorised by this consent, the Consent Holder shall prepare and submit an update to the Ecological Management Plan (EMP) (prepared by Wildlands Ltd and dated May 2020) to Waikato District Council's Team Leader-Monitoring for certification. The update to the EMP shall be prepared by a suitably qualified ecologist and shall include:

- (a) Details of additional compensation works to ensure that the effects of all indigenous vegetation (including indigenous wetland vegetation) removal associated with this activity are offset;
- (b) Compliance with the biodiversity offsetting framework as per section APP3 of the Proposed District Plan;
- (c) Timeframes for implementation of the works within the EMP including fencing, each area of planting and review and reporting requirements. This shall include timing and any staging in relation to the works authorised by this consent;
- (d) Identification of appropriate methodologies and monitoring procedures to ensure all mitigation measures undertaken are effective;
- (e) The planting and fencing proposed including the number of plants required;
- (f) Provision for weed and/or pest control;
- (g) A maintenance programme to ensure all the rehabilitated areas are maintained, including fencing from stock, weed and pest control, planting protection and replacement to ensure the revegetation and mitigation works are successful; and
- (h) A monitoring and reporting programme.

Bat Management Plan

19 Prior to the commencement of works authorised by this consent, the Consent Holder shall submit an update to the Bat Management Plan (prepared by Wildlands Ltd and dated February 2020) prepared by a suitably qualified and experienced ecologist to Waikato District Council's Team Leader-Monitoring for certification. The update to the BMP shall be compliant with the management practice for artificial roost management as outlined in: New Zealand Bat Recovery Group Advice Note – The Use of Artificial Bat Roosts (18/10/2021). In particular this shall:

- (a) specify that acoustic surveys be conducted in the appropriate season,
- (b) that predator exclusion bands surrounding artificial roosts be inspected annually and adjusted as needed for 15 years; and
- (c) Set out any necessary timing of work in relation to the staging and progression of activity provided for by this consent.
- (d) Timeframes for implementation of the BMP including timing and any staging in relation to the works authorised by this consent.

Lizard Management Plan

- 20 Prior to the commencement of works authorised by this consent, the Consent Holder shall submit a Lizard Management Plan (LMP) prepared by a suitably qualified ecologist/herpetologist to the Waikato District Council's Team Leader-Monitoring for certification. The LMP shall:
- (a) Confirm location of potential native lizard habitat affected by the works authorised by this consent
 - (b) Procedures for a targeted, manual search and salvage of native lizards
 - (c) Identify habitat for translocation of salvaged lizards
 - (d) Set out any necessary timing of work in relation to the staging and progression of activity provided for by this consent.
 - (e) Timeframes for implementation of the LMP including timing and any staging in relation to the works authorised by this consent.

Landscape and Visual Mitigation

- 21 Prior to the commencement of works authorised by this consent, the Consent Holder shall submit a Landscape and Visual Mitigation Management Strategy (LVMMS) prepared by a suitably qualified and experienced professional to the Waikato District Council's Team Leader-Monitoring for certification. The LVMMS shall include, but not be limited to the following:
- (a) A plan which identifies the existing vegetation (predominately pine and eucalyptus) to the north east of the Fill Areas
 - (b) Details to ensure that the existing vegetation identified on the plan above is retained until after all filling is completed:
 - (c) Details to demonstrate that upon completion of each lift, the Fill Area landform is shaped to visually integrate with the adjacent natural landform.
 - (d) Details to demonstrate that the landform and all associated disturbed areas are progressively re-grassed and returned to pasture.

Post ConstructionSite Rehabilitation

- 22 Within 6 months of any decision to cease filling operations of any individual Fill Area, the consent holder shall provide for certification a Closure and Rehabilitation Plan to the Waikato District Council's Team Leader Monitoring. The Closure and Rehabilitation Plan shall detail rehabilitation objectives, goals and success criteria to be followed and, as a minimum shall include (but not be limited to) the following:
- (a) Configuration of the final Fill Area footprint and its overall shape and form which demonstrates integration with the adjacent natural landform.
 - (b) An implementation strategy that identifies the timing of all mitigation planting and restoration works within the Fill Area and surrounding disturbed areas to ensure vegetation coverage.
 - (c) Identification of existing landscape features and landforms to be retained within the site.
 - (d) Identification of methods to be employed to ensure slope stability and erosion control during plant establishment.
 - (e) Identification of management and restoration procedures to be adopted in the

handling and storage of topsoil, subsoil and overburden materials to ensure their continued viability for a growing medium for mitigation and restoration planting.

- (f) Identification of contingency measures should planting fail to establish.
 - (g) An indicative maintenance programme.
- 23 The Consent Holder shall implement the certified Closure and Rehabilitation Plan under the supervision of persons with appropriate restoration or rehabilitation experience.

Geotechnical

- 24 All completed works associated with the Fill Areas must be certified by a suitably qualified geotechnical professional that the work has been completed in accordance with the requirements specific to each fill area as specified in the SFMP. Written confirmation shall be provided to Waikato District Council's Team Leader-Monitoring for acknowledgment.
- 25 Erosion and sediment controls as required by condition 7 shall be maintained and remain in place until the Waikato District Council's Monitoring Team is satisfied that the risk from erosion and instability has been reduced to a less than minor risk and has provided approval in writing.

Ongoing Conditions

- 26 The Consent Holder shall implement the requirements of, and exercise this consent in accordance with the following plans, documents and other associated consents:
- (a) Site Fill and Management Plan certified as per condition 12
 - (b) Detailed design of the Riverview Road certified as per condition 13
 - (c) Vehicle Access Layout Plan certified as per condition 14
 - (d) Site Circulation and Loading Management Plan certified as per condition 15
 - (e) Traffic Noise Management Plan certified as per condition 16
 - (f) Ecological Management Plan certified as per condition 17
 - (g) Bat Management Plan certified as per condition 18
 - (h) Lizard Management Plan certified as per condition 19
 - (i) Landscape and Visual Mitigation Management Strategy certified as per condition 20

Hours of Operation

- 27 The hours of operation for all activities within Fill Area 2, 3 and 4 shall be limited to:
- | | |
|------------------------------|------------|
| Monday to Friday (inclusive) | 6am to 7pm |
| Saturday | 6am to 2pm |

The site shall not operate on a Sunday or on any public holidays.

Noise

- 28 The Consent Holder shall ensure that all activities subject of this consent shall be designed and conducted to ensure that the following noise limits are not exceeded at any point within the notional boundary of any dwelling on another site:
- (a) 50dB L_{Aeq} , 7am to 7pm everyday;

- (b) 45dB L_{Aeq} , 7pm to 10pm everyday; and
 - (c) 40dB L_{Aeq} , and 65dB L_{Amax} 10pm to 7am the following day pm Monday to Friday; and
- 29 Noise shall be measured in accordance with New Zealand Standard *NZS 6801:2008 Acoustics - Measurement of Environmental Sound* and assessed in accordance with *NZS 6802:2008 – Acoustics - Environmental Noise*.

Advice Note: Notional boundary means a line 20 metres from any side of a dwelling, or the legal boundary where this is closer to the dwelling.

- 30 Within three (3) months of giving effect to this consent, and at any other time when requested by Waikato District Council, the Consent Holder shall engage a suitably qualified acoustic engineer to undertake noise level monitoring from all activities on the site to confirm compliance with Condition 28. The results of this monitoring shall be reported to the Waikato District Council Monitoring Team Leader within 10 working days of the completion of the monitoring.
- 31 Where the monitoring of noise levels required by Condition 30 demonstrates a non-compliance with Condition 28, the Consent Holder shall take action within five (5) working days to ensure that compliance is achieved and shall report to the Waikato District Council's Monitoring Team Leader the mitigation actions to be implemented. Following implementation of such mitigation measures a further noise level survey shall be undertaken confirming that compliance with the relevant noise criteria has been achieved, and those results forwarded to the Waikato District Council's Monitoring Team Leader within ten (10) working days of the completion of the monitoring.

Transport

- 32 Truck movements to and from the site entrance for all shall be limited to a maximum of 12 per hour during the morning period between the times of Monday to Friday 5am to 6am.

Advice Note: Operating hours and truck movements do not apply when an emergency is declared by the local or regional authority and metal is required as part of a civil defence response.

Advice Note: This is a maximum at the site vehicle crossing applying to all site activities as a total and includes both inbound and outbound movements.

Advice Note: The hours of operation noted in this condition apply only to truck movements.

- 33 The maximum total number of truck movements at the site vehicle crossing shall not exceed 60 vehicles/hour.

Advice note: this is a maximum at the site vehicle crossing applying to all site activities as a total and includes both inbound and outbound movements.

- 34 The consent holder shall take all practicable steps to ensure debris is not tracked or spilled onto Council roads. This shall include maintaining the wheel wash and the sealed pavement areas at the vehicle crossing between the Riverview Road seal edge, the wheel wash and the weighbridge. In the event that debris is tracked or spilled onto Riverview Road or any other road the consent holder shall take all necessary actions to clean any road surface and associated drainage facilities to the satisfaction of Council's Monitoring Officer. The Consent Holder shall maintain a log of road clean-ups undertaken and provide a copy of the log to Council's Monitoring Officer on a 6 monthly basis or on request. The cost of the clean-up of any roadway and associated drainage facilities, together with all temporary traffic control, shall be the responsibility of the consent holder.

Advice note: A temporary traffic management plan approved by the relevant Road Controlling Authority (RCA) is required for work on the public roads. The consent holder could seek approval of a generic temporary traffic management plan for operating the road sweeper that is revised on an annual basis, as agreed with Council as Road Controlling Authority.

- 35 The consent holder shall maintain a register of daily truck movements, daily aggregate volume leaving the site and daily cleanfill material entering the site. . The register shall contain the following:

- (a) Registration number of vehicle
- (b) Time of arrival
- (c) Approximate size of the fill load deposited
- (d) Source and type of material to be deposited
- (e) Comments on whether the material is accepted or not
- (f) Comment on whether the truck is backloaded with quarry material
- (g) Time of departure
- (h) Approximate size of the backloaded quarry material

- 36 The daily incoming and outgoing logs shall be retained on site at all times and made available for Council inspection during working hours. A copy of the logged information shall be forwarded to the Waikato District Council's Monitoring Team Leader on a six (6) monthly basis from the commencement of this consent. The submitted information shall include totals for the number of inbound fill truck movements and total backloads for the six-monthly period.

Contaminated Land

- 37 Soil disturbance works shall be undertaken in accordance with the approved Contaminated Site Management Plan (CSMP) 'Contaminated Site Management Plan, Proposed Huntly Managed Fill – Fill Area 3', prepared by EHS Support, EHS Support Job No: J000103, dated 1 September 2021, or such alternative CSMP submitted to, and approved by, Waikato District Council's Contaminated Land Specialist. The procedures, controls and contingency measures outlined in the CSMP must be implemented for the duration of the soil disturbance works to ensure minimal adverse effects on human health and the environment.

- 38 All material removed from the site in the course of the soil disturbance works shall be disposed to a suitably licensed facility authorised for receipt of material of that kind.
- 39 Within three months of soil disturbance works being completed the consent holder shall provide a works completion report to Waikato District Council to confirm that the methods outlined in the CSMP were enforced for the period required, and that the measures were successful in ensuring the potential risks were adequately managed. The works completion report shall be completed by a suitably qualified and experienced practitioner and include, but not be limited to:
- (a) Confirmation that the methods described in the CSMP were followed;
 - (b) A summary of the works undertaken including:
 - (i) summary of the earthworks methodology followed;
 - (ii) description of the deposition of soil reused on the site (if any) including location and volume;
 - (iii) volume of soil removed (if any) from the site;
 - (c) Details of all soil samples taken, tabulated analytical results and interpretation of results;
 - (d) Details of any unexpected contamination encountered during the works and actions taken in respect of this;
 - (e) Copies of disposal receipts for any material removed from the site.

Dust

- 40 The Consent Holder shall ensure that the site shall be managed in such a way that particulate matter resulting from activities authorised by this consent do not cause an objectionable or offensive effect beyond the boundaries of the site to the satisfaction of Waikato District Council's Team Leader Monitoring.

Advice Note:

For the purposes of this condition, the Waikato District Council Monitoring Team will consider an effect that is objectionable or offensive to have occurred if any appropriately experienced officer of the Waikato District Council determines so after having regard to:

- (a) *The frequency, intensity, duration, location and effect of dust emissions(s); and/or*
 - (b) *Receipt of complaints from neighbours or the public; and/or*
 - (c) *Where relevant written advice from an experienced officer of the Waikato Regional Council or the Waikato District Health Board has been received*
- 41 Should an emission of particulate matter occur that has an objectionable or offensive effect, the Consent Holder shall inform the Waikato District Council within 24 hours of the incident and provide a written report to the Waikato District Council within five days of being notified of the incident. The report shall specify:
- (a) The cause or likely cause of the event and any factors that influenced its severity;
 - (b) The nature and timing of any measures implemented by the consent holder to avoid, remedy or mitigate any adverse effects; and
 - (c) The steps to be taken in future to prevent recurrence of similar events.

Odour

- 42 The Consent Holder shall ensure that the site shall be managed in such a way that activities authorised by this consent do not cause an objectionable or offensive odour effect beyond the boundaries of the site to the satisfaction of Waikato District Council's Team Leader Monitoring.

Advice Note:

For the purposes of this condition, the Waikato District Council Monitoring Team will consider an effect that is objectionable or offensive to have occurred if any appropriately experienced officer of the Waikato District Council determines so after having regard to:

- (a) The FIDOL factors described within the 'Good Practice Guide for Assessing and Managing Odour' prepared by the Ministry for the Environment; and/or*
 - (b) Receipt of complaints from neighbours or the public; and/or*
 - (c) Where relevant written advice from an experienced officer of the Waikato Regional Council has been received*
- 43 Should an emission occur that has an objectionable or offensive odour effect, the Consent Holder shall inform the Waikato District Council within 24 hours of the incident and provide a written report to the Waikato District Council within five days of being notified of the incident. The report shall specify:
- (a) The cause or likely cause of the event and any factors that influenced its severity;
 - (b) The nature and timing of any measures implemented by the consent holder to avoid, remedy or mitigate any adverse effects; and
 - (c) The steps to be taken in future to prevent recurrence of similar events.

Archaeological

- 44 In the event of any archaeological site or waahi tapu being discovered or disturbed while undertaking works to give effect to the conditions of this consent, the works in the area shall cease immediately, and iwi and the Waikato District Council shall be notified within 48 hours. Such approval shall be given after the Waikato District Council has considered:

- (a) Tangata Whenua interests and values;
- (b) The Consent Holder's interests; and
- (c) Any archaeological or scientific evidence.

- 45 In the event of any human remains or archaeological items be exposed while undertaking works to give effect to conditions of this consent, the Consent Holder shall ensure works in that area cease immediately. The Police, New Zealand Historic Places Trust, and Kaumatua representing the local Tangata Whenua shall be contacted and work shall not recommence in the affected area until any necessary statutory authorisations or consents have been obtained.

Cultural

- 46 Within three months of the consent being granted the consent holder shall develop a Maatauranga Maaori Environmental Monitoring Plan (MMEMP). The MMEMP shall include but will not be limited to:
- (a) Undertaking cultural monitoring during topsoil removal;
 - (b) Iwi input into the Closure and Rehabilitation plan;
 - (c) Involvement of the iwi in water quality monitoring;
 - (d) Iwi input into the Dust Management Plan and air discharge monitoring;
 - (e) Iwi input into the Bat Management Plan and Ecological Management Plan
- 47 The MMEMP shall be developed in consultation with the iwi and the final MMEMP provided to the iwi for comment at least 20 working days prior to submitting the MMEMP to the Waikato District Council's Team Leader-Monitoring.
- 48 The MMEMP shall be certified in writing by the Waikato District Council acting in a technical certification capacity and the consent holder shall undertake all activities authorised by this consent in accordance with the certified MMEMP.
- 49 Any changes proposed to the MMEMP shall be confirmed in writing by the consent holder following consultation with the Waikato District Council acting in a technical certification capacity, prior to the implementation of any changes proposed.

Advice Note: Waikato District Council certification of the MMEMP is to ensure that the intent of Condition 46 has been met and that the content of the MMEMP is consistent with the condition requirements.

Complaints Procedure

- 50 The consent holder shall establish and publicise a local telephone number so that members of the public have a specified and known point of contact to raise any matters of concern that may arise during operation of the managed fill facility.
- 51 The consent holder shall maintain and keep a complaint register for substantiated complaints about the operation of the managed fill facility received by the consent holder in relation to traffic, noise, dust or other environmental effects of the activity. The register shall record, where this information is available, the following:
- (a) The date, time and duration stated by the complainant as to when the incident (if possible, specify nature of incident e.g. dust nuisance) was detected;
 - (b) The location of the complainant when the incident was detected;
 - (c) The weather conditions and wind direction at the site when the event/incident allegedly occurred;
 - (d) The possible cause of the incident;
 - (e) Any corrective action taken by the consent holder in response to the complaint, including time of that corrective action; And
 - (f) Any other relevant information.

- 52 The complaints register shall be available to the Council at all reasonable times upon request. Complaints received by the consent holder that may imply non-compliance with the conditions of this consent shall be forwarded to the Waikato District Council, Team Leader Monitoring within 48 hours of the complaint being received.

Review Condition

- 53 The Waikato District Council may, by giving notice to the Consent Holder of its intention to do so under section 128 of the Resource Management Act 1991, review any or all of the conditions of this consent six months after the date of the commencement of this consent and at one yearly intervals thereafter for any of the following purposes:
- (a) To review the effectiveness of the conditions of this consent in avoiding, remedying, or mitigating any adverse effect on the environment that may arise from the exercise of this consent and if necessary to avoid, remedy or mitigate such effects by way of further or amended conditions. In particular, adverse effects in relation to:
 - (i) Noise arising from quarrying and filling activities;
 - (ii) Visual impacts;
 - (iii) Hours of operation;
 - (iv) Ecological effects;
 - (v) Landscape and amenity effects;
 - (vi) Cultural effects; and
 - (vii) The performance and success of any rehabilitation.
 - (b) To address any adverse effects on the environment which have arisen as a result of the exercise of this consent that were not anticipated at the time of granting this consent, including addressing any issues arising out of complaints;
 - (c) To review the adequacy of, and necessity for, any of the monitoring programmes or management plans that are part of the conditions of this consent;
 - (d) To require the consent holder, if necessary and appropriate, to adopt the best practicable option(s) to avoid, remedy or mitigate any adverse effects on the surrounding environment.

The Council will undertake the review in consultation with the consent holder and the consent holder shall pay the actual and reasonable costs of the review.