

**BEFORE AN INDEPENDENT HEARINGS PANEL
OF THE WAIKATO DISTRICT COUNCIL**

IN THE MATTER of the Resource
Management Act 1991

AND

IN THE MATTER of the proposed Waikato
District Plan (Stage 1)
Hearing 25

**EVIDENCE OF CAMPBELL JAMES MCGREGOR ON BEHALF OF HYNDS PIPE
SYSTEMS LIMITED AND THE HYNDS FOUNDATION**

STORMWATER AND INFRASTRUCTURE

17 February 2021

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1. INTRODUCTION

- 1.1** My full name is Campbell James McGregor.
- 1.2** I hold a Bachelor of Surveying from University of Otago, Master of Engineering Studies (Honours) and Post Graduate Diploma in Business from Auckland University. I am a Chartered Professional Engineer and chartered member of Engineering New Zealand. I am a member of the Institute of Directors and Water NZ.
- 1.3** I have worked in New Zealand, Australia and the United Kingdom over the past 20 years within various engineering consultancies, providing infrastructure planning and design advice for residential, commercial and industrial developments as well as large scale infrastructure projects.
- 1.4** My experience includes:
- (a) Design of residential, commercial and industrial development infrastructure, including bulk earthworks, roading, drainage (wastewater and stormwater management), and utilities; and
 - (b) Project or civil/utility design lead on numerous projects over the past 10 years including City Rail Link, Huia Replacement Water Treatment Plant, Tamaki Implementation Plan, Brickworks at Lynn Mall and New Zealand Transport Agency's Northern Corridor Improvements.
- 1.5** I am currently a Technical Director at Harrison Grierson.
- 1.6** I have previously worked for Cook Costello Limited (New Zealand), Aurecon (New Zealand) and Arup (United Kingdom) and have been a director of my own business, Infracivil Limited.
- 1.7** I have previously prepared and presented evidence in Council hearings and the Environment Court on behalf of clients covering areas relating to earthworks, utilities and drainage infrastructure.
- 1.8** I advise that I have read the Code of Conduct for Expert Witnesses contained in the Environment Court Practice Note 2014 and have complied with it in preparing this evidence. I confirm that the issues addressed in this evidence are within my area of expertise and I have not omitted material facts known to me that might alter or detract from my evidence.

2. SCOPE OF EVIDENCE

- 2.1** I have been asked to provide evidence on behalf of Hynds Pipe Systems Limited and the Hynds Foundation in relation to their submissions/further submissions on the Proposed Waikato District Plan (**Proposed Plan**). Hynds Pipe Systems Limited and the Hynds Foundation are referred to collectively as **Hynds** in this evidence unless the distinction is made between the two organisations.
- 2.2** The Proposed Plan applied the Rural zone to the land at 62 Bluff Road, adjoining the Hynds plant. This land has recently been purchased by Hynds. The focus of this evidence is Hynds' request that the lower portion of the 62 Bluff Road site (the **Expansion Land**) be zoned Heavy Industrial whilst retaining the proposed Rural zone on the upper portion of the land.
- 2.3** My evidence will cover the following matters:
- (a) Outline of the rezoning proposal;
 - (b) Stormwater;
 - (c) Infrastructure servicing;
 - (d) Comments on the Council Reporting Officer's s42A Framework Report; and
 - (e) Conclusions

3. SUMMARY OF EVIDENCE

- 3.1** In my evidence I have provided an assessment of the stormwater effects and infrastructure provision requirements of Hynds' rezoning proposal to extend the Heavy Industrial Zone onto the Expansion Land adjacent to Hynds' Factory Site.
- 3.2** The Expansion Land is located within a gully with an upstream catchment that stretches approximately 1.7km to the southwest.
- 3.3** Stormwater flows from the gully currently pond on 10 and 62 Bluff Road before discharging through a stormwater culvert beneath State Highway 1 (**SH1**).

- 3.4** In order to create a developable area earthworks will be required within the gully.
- 3.5** The infilling of the gully and creation of an impervious area will impact on the existing ponding area but will also increase surface run off from the catchment.
- 3.6** While there will be adverse stormwater effects resulting from the earthworks within the gully and creation of an impervious area, in my opinion these can be mitigated.
- 3.7** An initial analysis of the catchment using HEC-HMS software indicates that discharge of flows from the site do not result in an increase in the peak flow from the catchment and would potentially result in a reduction of the existing ponding area. However, as part of any resource consent to develop the catchment I would recommend the development (or extension) of a hydrological model for the proposed development, to better assess the potential effects.
- 3.8** Any resource consent application would also need to assess the reduction of the ponding area because of the earthworks needed to create a developable footprint.
- 3.9** While no public wastewater or water supply networks exist in close proximity to the Expansion Land, should servicing be required, in my opinion these could be provided either through onsite systems or through extension of the existing private networks.
- 3.10** In conclusion, having assessed the existing infrastructure and acknowledging that further consents will be required in relation to any proposed development, I consider there are no infrastructural constraints that would prohibit the ability to develop the Expansion Land. On this basis I support the proposed rezoning of the Expansion Land.

4. OUTLINE OF REZONING PROPOSAL

- 4.1** Hynds own and operate a pipe manufacturing facility at 9 McDonald Road (**Hynds Factory Site**). This operation generally operates 24 hours a day and is

zoned Industrial 2 under the Operative Waikato District Plan (**Operative Plan**) and Heavy Industrial in the Proposed Plan for this purpose.

- 4.2 Hynds also own adjacent properties at 62 Bluff Road, 10 Bluff Road and have recently acquired the site access strip to the Synlait site to provide connectivity to their landholdings.

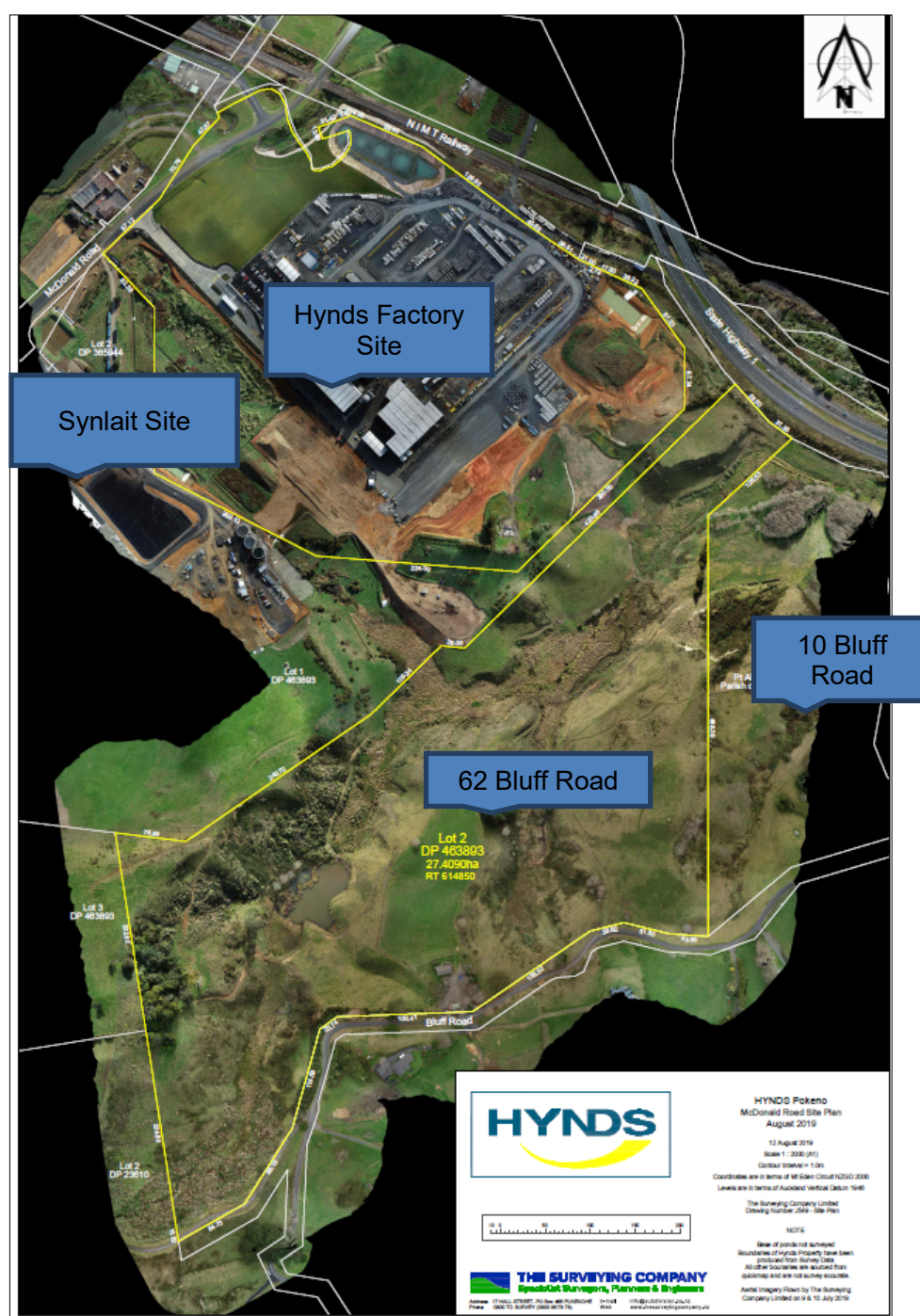


Figure 1 – Location Plan

- 4.3** As part of the current district plan review process Hynds is seeking to extend the proposed Heavy Industrial Zone south onto land which, under the Operative Plan, is currently zoned Aggregate Extraction and Processing (**AEP**), to allow for future expansion of their existing operations.
- 4.4** Under the Proposed Plan, the whole of 62 Bluff Road is currently proposed to be zoned rural. Hynds supports rural zoning for the balance of the 62 Bluff Road site.
- 4.5** Hynds' proposed rezoning is illustrated below and in Appendix 1 of my evidence.

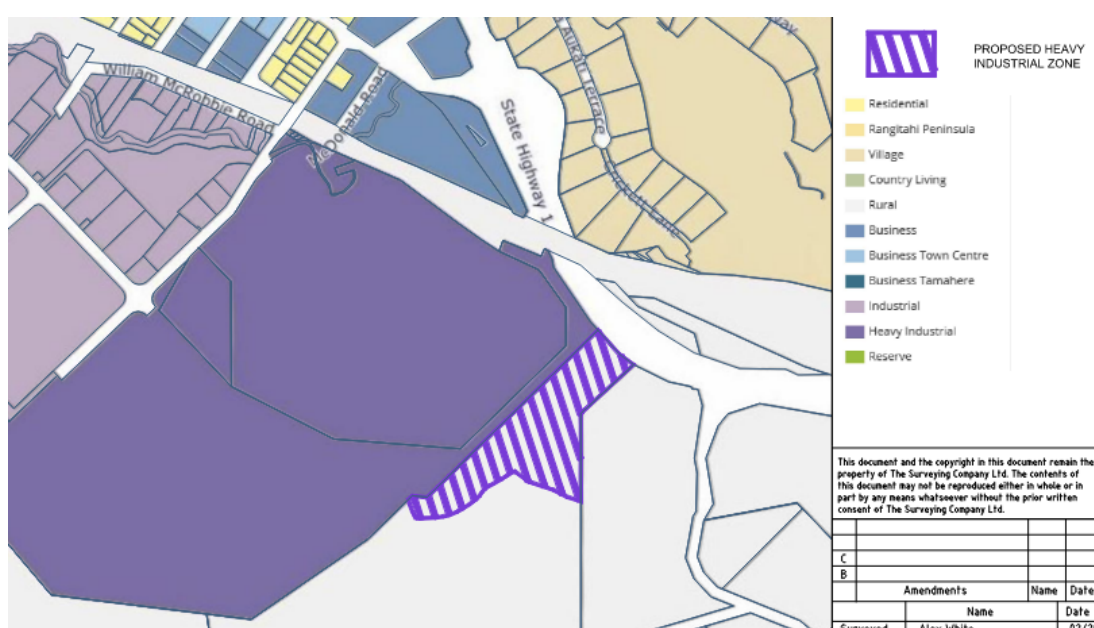


Figure 2 – Proposed Expansion Land

- 4.6** In order to create a developable area earthworks will be required.

5. STORMWATER

Existing stormwater network

- 5.1** The proposed area for rezoning is located within a gully, with an upstream catchment that stretches approximately 1.7km in a southwesterly direction. The total upstream catchment area is approximately 76.8ha. This catchment is to the south of the Tanitewhiora catchment within which the Hynds plant resides.

5.2 Downstream of the site the natural catchment is dammed by the SH1 corridor. NZTA records indicate flow is conveyed through existing 300 & 1050dia. Aluflo culverts (based on NZTA as-built data), before flowing a further 400m to Leatham's stream and then on to Mangatawhiri River.

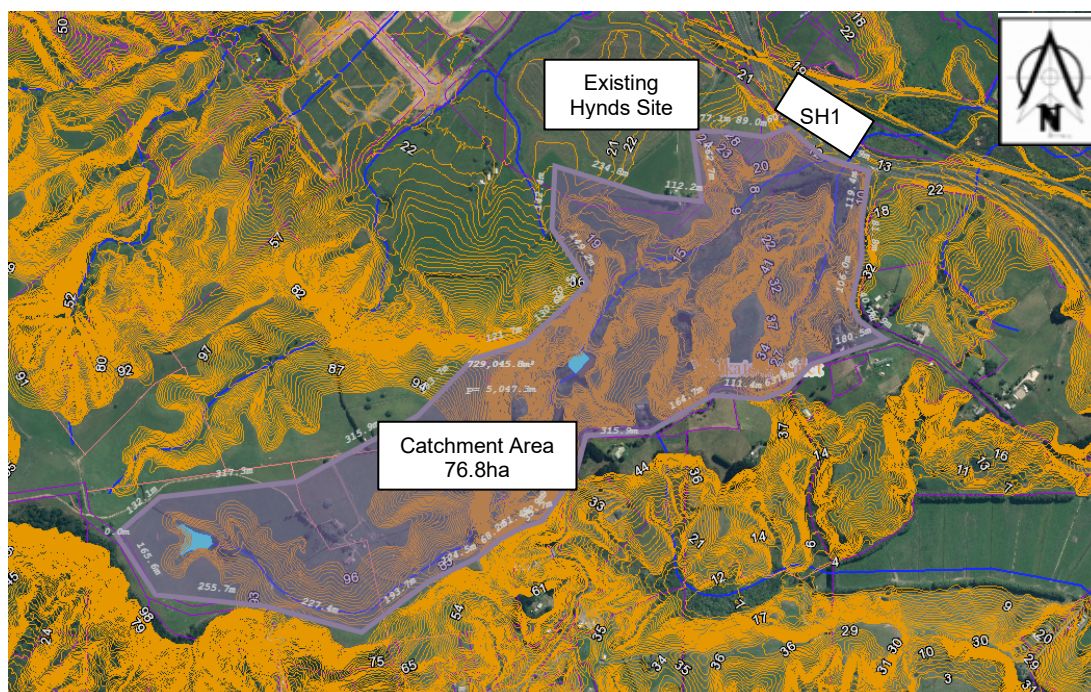
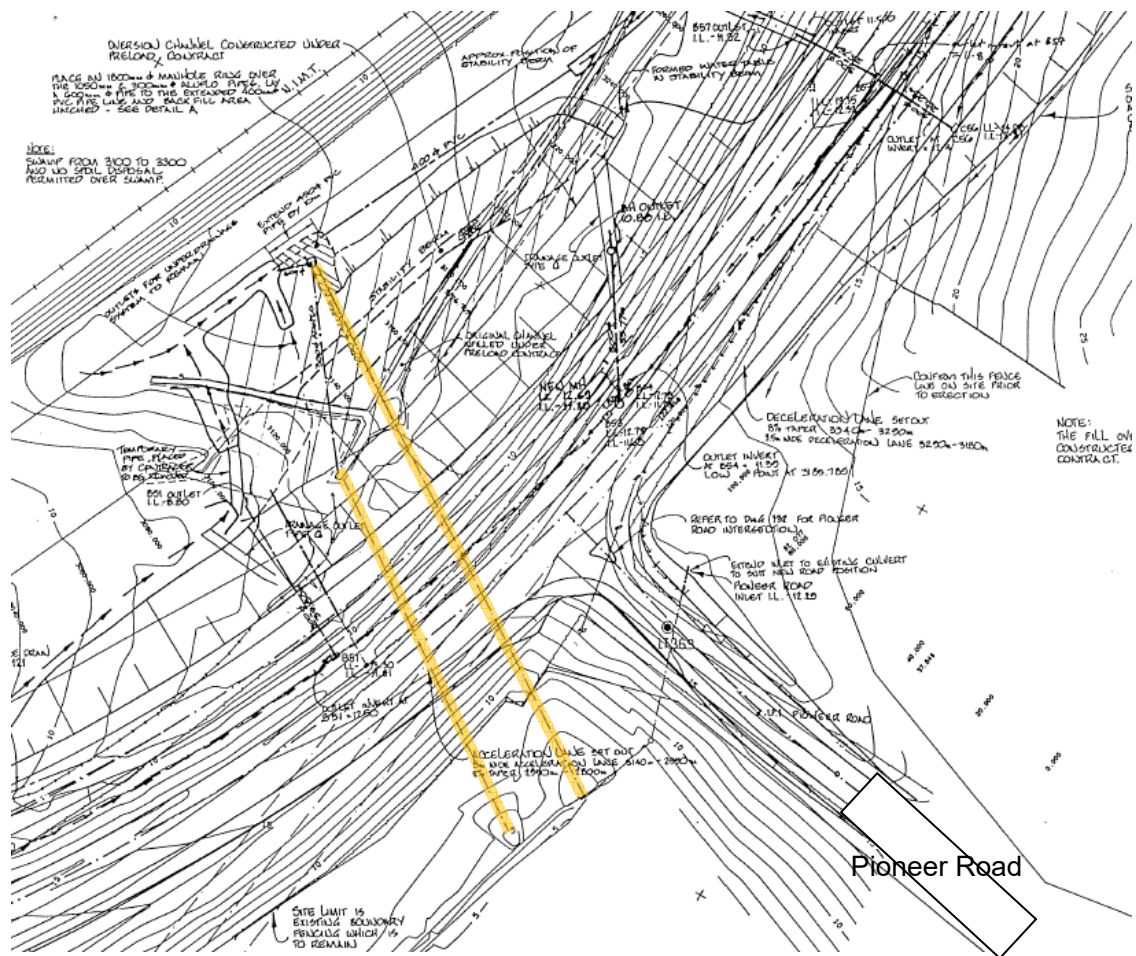


Figure 3 – Existing Catchment Area

5.3 While NZTA's drawing records indicate two culverts, only a single 1200dia. culvert has been found onsite. This single culvert has therefore been utilised for my assessment purposes.



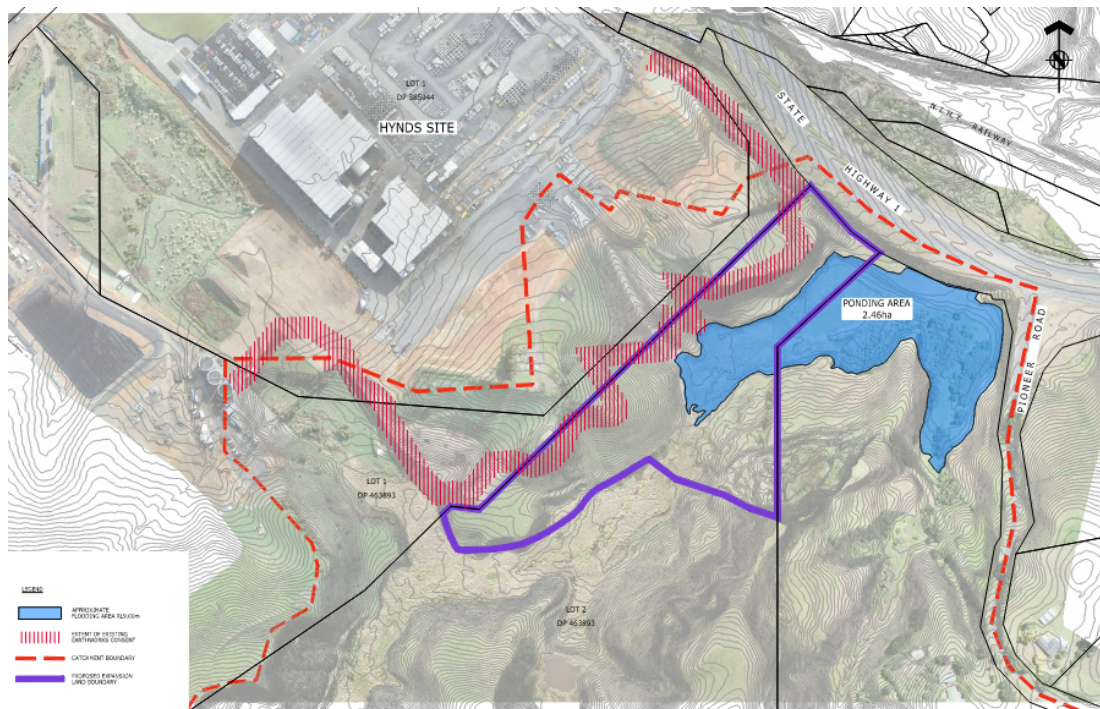


Figure 5 – Existing Ponding Area

Changes resulting from rezoning proposal

- 5.6** As a result of the proposed rezoning a portion of the Expansion Land may be redeveloped and impervious area created. I consider the effects of this below.

Stormwater Effects

- 5.7** The Operative Plan Franklin section states at rule 29.5.17. that all activities shall have a stormwater management system that is deemed to be effective and appropriate by the Council.
- 5.8** In order to mitigate any stormwater impacts of the proposed rezoning on the downstream environment any development flows will potentially (see paragraph 5.9 of my evidence below) need to be restricted to that of the predevelopment rate of discharge up to and including a 1 in 100 year event. Any proposal to modify the existing landform or inhibit flows will also need to be addressed as part of any future land use consent.
- 5.9** My initial assessment suggests that while the overall discharge volume would increase if the Expansion Land were developed, earlier release of the water to the culvert below would in fact result in a reduction in the peak storage volume (ponding volume) that currently occurs on 62 and 10 Bluff Road. However,

further analysis will be required as part of a future resource consent application to determine the full flood impacts.

- 5.10** The Expansion Land will also likely require earthworks and infilling of part of the flood plain. While some infilling has already been allowed for under the existing earthworks consent that applies to part of 62 Bluff Road (see Figure 5 above and attached plan in Appendix 1 of my evidence), this resides outside the existing ponding area. Therefore the reduction in flood storage area will also need to be assessed as part of any future resource consent application.
- 5.11** I would recommend that as part of any future development proposal, a hydrological model is developed to confirm the effects on 62 and 10 Bluff Road (including the Expansion Land), and downstream so that the adverse stormwater effects are appropriately mitigated.
- 5.12** Given the limited existing level of development downstream of the Expansion Land and the relatively small area of the Expansion Land, I consider any modelling could be done as part of a future consenting process and the rezoning request for the Expansion Land can be approved. Further assessment of the stormwater effects of any specific proposals (including modelling) will be required at the resource consent stage.
- 5.13** In summary I support the rezoning of the Expansion Land and consider the stormwater effects can be appropriately managed.
- 5.14** However, in my opinion larger scale zone changes within the wider catchment may warrant confirmation of the stormwater effects prior to approval of any zone change, to ensure any adverse effects at a catchment-wide level are understood and can be adequately mitigated.

6. INFRASTRUCTURE SERVICING

Wastewater & Water Supply

- 6.1** There are no existing public wastewater or water supply networks near the Expansion Land.

- 6.2** Therefore, any wastewater servicing requirements will either need to be met by providing onsite wastewater disposal, or through an extension of the private wastewater reticulation on the Hynds Factory Site. Due to the existing topography, if a wastewater connection were required, it is likely this would need to be pumped either to the existing private network on the Hynds Factory Site or directly to the public reticulation in McDonald Road.
- 6.3** Similarly, water supply will either need to be provided through a tank supply (roofwater collection) or through an extension of the private potable water reticulation on the Hynds Factory Site.
- 6.4** Any proposal for extensions or collections systems will be subject to the necessary regulatory and building consent approval processes.
- 6.5** Power and communications supply to any buildings would need to be agreed with the relevant Network Utility Operator.
- 6.6** None of these servicing requirements in my opinion are an impediment for future redevelopment (subject to additional consenting) of the Expansion Land.

7. COMMENTS ON THE COUNCIL SECTION 42A REPORT

- 7.1** I been provided a copy of the s42a Zone Extents Framework Report and comment below in relation to paragraph 162 – Additional locational criteria for general business, industrial and business parks.
- 7.2** Under the industrial criteria it states that one of the best practice planning matters to be considered in relation to the location of industrial land is the ease and affordability of providing water and wastewater (especially for wet industries).
- 7.3** As noted above there are no public reticulation networks near the Expansion Land. However, connection or servicing of the development area could be provided either through extension of nearby private networks, or through onsite systems.
- 7.4** Given the likely use as an extension of Hynds' existing operations, it is unlikely either potable water or wastewater demand will be created by the development, and if there is demand it is likely to be low.

7.5 Therefore, I consider there is adequate provision, and viability to provide, an affordable solution for water and wastewater supply.

8. CONCLUSION

8.1 In assessing the existing infrastructure and acknowledging further consents will be required in relation to any proposed development, I consider there are no infrastructural constraints that would prohibit the ability to develop the Expansion Land.

8.2 In the absence of any public infrastructure, any proposed future development would need to consider servicing requirements and either provide for these through onsite systems or through existing private systems. In my opinion, satisfactory servicing options are feasible and do not represent a significant barrier to the development of the Expansion Land.

8.3 Given the existing topography and stormwater catchment that flows through the proposed zone any development would need to consider the stormwater effects of both the development and the upstream catchment and mitigate these effects.

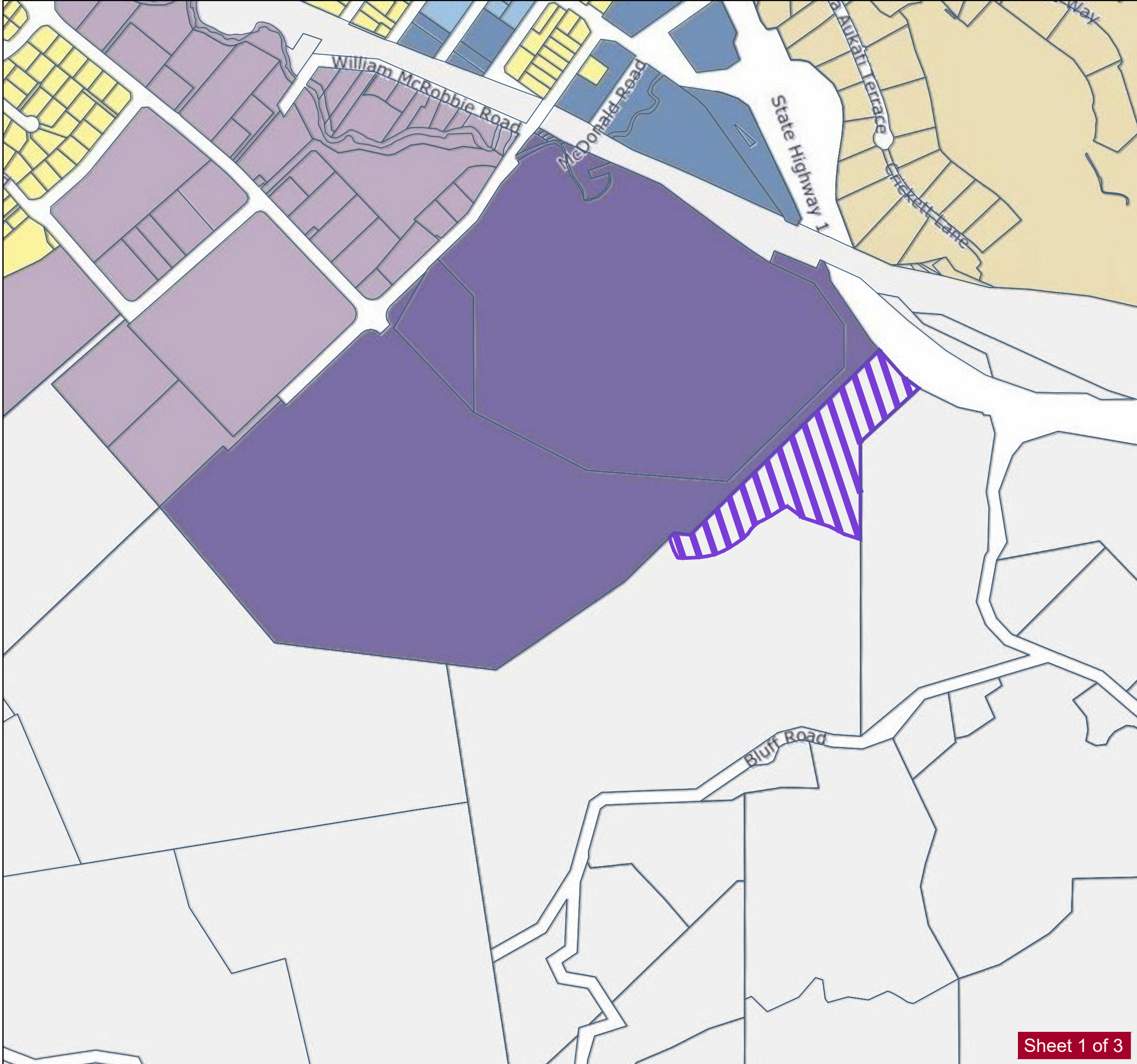
8.4 To determine the appropriate response as part of the development of the Expansion Land I consider this should be assessed through the development (or extension) of a hydrological model for the catchment area. In my opinion, given the scale of the Expansion Land, it is appropriate for the modelling to occur as part of any future related resource consent.

8.5 In conclusion, having assessed the existing infrastructure and acknowledging that further consents will be required in relation to any proposed development, I consider there are no infrastructural constraints that would prohibit the ability to develop the Expansion Land. On this basis I support the proposed rezoning of the Expansion Land.

Campbell James McGregor

17 February 2021

Appendix 1: Supporting Plans



PROPOSED HEAVY INDUSTRIAL ZONE

- Residential
- Rangitahi Peninsula
- Village
- Country Living
- Rural
- Business
- Business Town Centre
- Business Tamahere
- Industrial
- Heavy Industrial
- Reserve

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	Amendments	Name	Date
Surveyed	Name		Date
Designed	Alex White		02/20
Drawn	French		10/20
Checked			
Approved			

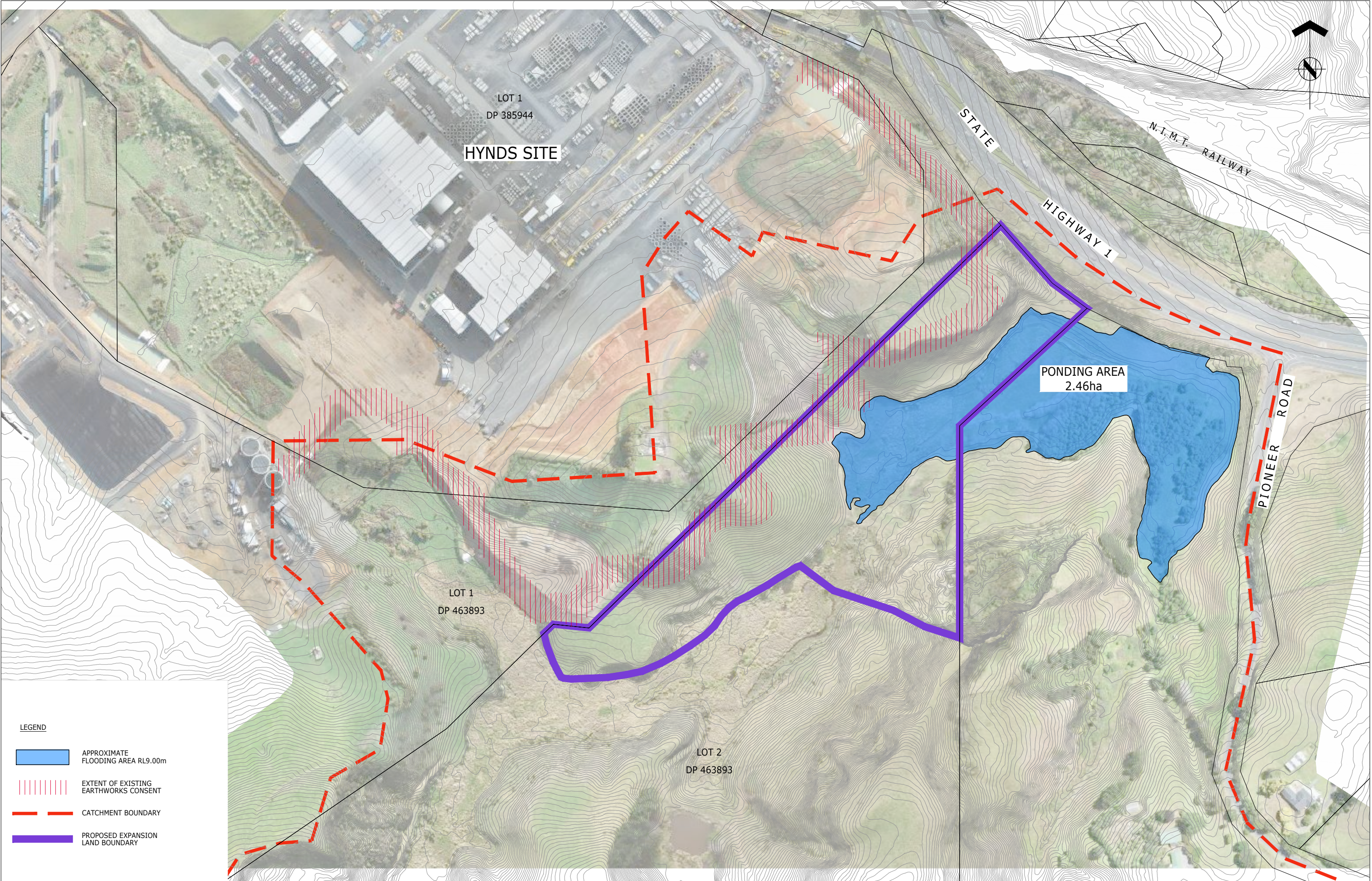
Job Title

ZONE PLAN

Client

HYNDS GROUP

Project	J549	Drawing	J549-ZONE PLAN
Cad Ref. File	J549-ZONE PLAN	Council Ref:	S
Scale (A3 Original)	1:6000	Amendment	C



- LEGEND
- APPROXIMATE FLOODING AREA RL9.00m
 - EXTENT OF EXISTING EARTHWORKS CONSENT
 - CATCHMENT BOUNDARY
 - PROPOSED EXPANSION LAND BOUNDARY

				ORIGINATOR: CM	DATE: 13.01.21	SIGNED:	PLOT BY: MNP	 ASSOCIATION OF CONSULTING ENGINEERS NEW ZEALAND	ISO 9001 QUALITY ASSURED		AUCKLAND OFFICE LEVEL 4, 96 ST GEORGES BAY ROAD PARNELL AUCKLAND 1052 T +64 9 917 5000 W www.harrisongrierson.com	PROJECT: HYNDS PIPE SYSTEMS LTD POKENO	TITLE: HYNDS EXPANSION LAND STORMWATER PONDING AREA	ISSUE STATUS: FOR INFORMATION		
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