IN THE MATTER of the Resource Management Act 1991

AND

IN THE MATTER of a submission in respect of the **PROPOSED WAIKATO DISTRICT PLAN** by **AMBURY PROPERTIES LIMITED** pursuant to Clause 6 of Schedule 1 of the Act to rezone 178ha of land at Ohinewai

STATEMENT OF EVIDENCE OF ROBERT JAMES HAMILTON WHITE

1. INTRODUCTION

1.1 My full name is Robert James Hamilton White. I am employed by GHD Limited as the Business Group Leader: Northern Water and Wastewater Group, a position I have held since July 2016.

Qualifications and experience

1.2 I am a Professional Engineer and hold a degree of Bachelor of Engineering (Civil) with Honours from Kingston Polytechnic (1989). I am a Chartered Civil Engineer (CEng); a Fellow of the Institution of Civil Engineers (FICE) (UK); a Chartered Member of Engineering New Zealand (CMEng); and a member of Water New Zealand.

1.3 I have been involved in the water and wastewater industry for over 30 years and in New Zealand for 15 years. During this time, I have been involved in a number of water and wastewater treatment plants and water and wastewater reticulation and conveyance systems, from initial servicing strategy stages to detailed design and construction.

1.4 I have been involved in sub-regional, and strategic wastewater planning for both the Waikato Region and nationally, including:

(a) Involvement in the Sub-Regional three waters strategy, and more recently Hamilton to Auckland (H2A) strategic case for three waters;

(b) Water and wastewater servicing strategy for the Southern Growth Area of Auckland, including the Future Urban Zones of Drury West and Opaheke in addition to the Drury South Industrial / Commercial Area.

Involvement in the Ohinewai Project

1.5 GHD was engaged by Ambury Properties Limited ("APL") to provide advice pertaining to potential options for water and wastewater servicing of the Ohinewai Structure Plan (OSP) area at 52-58 Lumsden Road, 88 Lumsden Road 231 Tahuna Road ("the site"), in light of the regulatory and sub-regional context and the existing infrastructure provisions available to the Waikato District Council (WDC).

1.6 A former colleague at GHD, Tim Harty, was originally advising APL in relation to water and wastewater servicing of the OSP and participated in the expert conferencing undertaken in June 2020. Mr Harty has now left GHD and taken up a new position. I have taken over his role on this Project. I have reviewed and interrogated the information compiled by Mr Harty and the wider GHD team and reviewed the expert conferencing notes in preparing this statement of evidence.

Purpose and scope of evidence

1.7 The purpose of my evidence is to address how the OSP Area can feasibly be serviced for water and wastewater, taking into account existing infrastructure, the capacity of the nearby municipal services and planned sub-regional infrastructure. This approach enables more efficient use and pooling of resources whilst also taking into account the planning and regulatory context and existing infrastructure provisions.

1.8 Specifically, my evidence will:

(a) Detail the sub-regional setting (Section 3).

(b) Provide an overview of existing assets and context of servicing the site (Section 4).

(c) Outline options available for water supply (Section 5).

(d) Outline options available for wastewater servicing (Section 6).

(e) Comment on issues raised by submitters relevant to my area of expertise (Section 7).

(f) Comment on the Council Officer's Report (Section 8).

(g) Provide a brief conclusion (Section 9).

1.9 A summary of my evidence is contained in Section 2.

1.10 My evidence should be read alongside the evidence of John Olliver and David Gaze.

Expert Witness Code of Conduct

1.11 I have read the Code of Conduct for Expert Witnesses, contained in the Environment Court Consolidated Practice Note (2014) and I agree to comply with it. I can confirm that the issues addressed in this statement are within my area of expertise and that in preparing my evidence I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed.

2. SUMMARY OF MY EVIDENCE

2.1 This section provides a summary of my evidence which is elaborated on further throughout the following sections.

Sub-regional setting summary

2.2 The driving legislation for the management of three waters, including water and wastewater within the Waikato River catchment is Te Ture Whaimana – the Vision and Strategy for the Waikato River. Any wastewater and water supply strategy being considered to enable the development of the OSP area must give effect to the Vision and Strategy.

2.3 Key sub regional initiatives that are in place, or are underway, include:

(a) the sub-regional Three Waters Strategy;

(b) the Hamilton to Auckland Corridor Plan (H2A); and

(c) the mid-Waikato Servicing Study (MWSS).

2.4 The Vision and Strategy includes broad objectives, that while not being exclusively about water quality, there are wider cultural considerations, although I understand that case law requires that an element of "betterment" be demonstrated in relation to any discharge to the Waikato River.

2.5 For wastewater servicing, in particular, this supports upgrading and utilising existing infrastructure and existing consented discharges to service new development as an interim servicing option.

2.6 As a long-term servicing option for the OSP area, the MWSS is currently in the process of being developed by Watercare Services Limited (WSL). The MWSS option is understood to result in recommending the upgrading of the existing WWTPs between Huntly and Meremere rather than a amalgamating into a single larger WWTP with long rising mains connecting centres. This allows for the upgrading of existing facilities that are currently underperforming and not complying with performance criteria.

2.7 For water supply, it is understood that water treatment plants will be retained at Te Kauwhata and Huntly, but likely to be interlinked to allow water to be transferred from Te Kauwhata to Ohinewai, Huntly and Ngaruawahia.

2.8 WSL has confirmed that the servicing of the OSP area for both wastewater and water is being considered in the MWSS. This long-term solution is likely to have a lead time of at least 5 years prior to connections being available to it. An interim solution is therefore needed in the meantime.

Existing and planned assets in the context of servicing the OSP Area

Wastewater infrastructure

2.9 There is currently discharge capacity available within Waikato District Council's existing discharge consent for the Huntly WWTP, with a consented discharge volume of 11,500m^3/day. Annual peak day discharges are currently typically under 5,000m^3/day, with a peak discharge of 7,142 m^3/day recorded as a result of significant rainfall from Cyclones Cook and Debbie in April 2017. The Huntly WWTP discharge consent expires in 2029.

2.10 Peak inflows are significantly greater than peak outflows with flows buffered though the ponds. As an example, the 2018 peak inflow was recorded as 8,179m^3/day with the peak discharge recorded as 4,712m^3/day.

2.11 The Huntly WWTP currently discharges to the Waikato River, however, the discharges do not comply with several resource consent conditions. In particular, the discharge quality has been unable to comply with total suspended solids and ammoniacal nitrogen limits over recent reporting periods.

Water infrastructure

2.12 The Huntly WTP has a consented water take of 6,700 m^3/day[1], and has an reported average daily take of just over 3,000m^3/day with a peak of approximately 4,100m^3/day (2018 Water Safety Plan). This excludes supply to Ngaruawahia, which is understood to have commenced in December 2018, and can amount to a peak demand of in the order of 2,000m^3/day. Water supply of between 600 and 2,600m^3/day is understood to currently be available. The Consent expiry date is 30 June 2050.

2.13 The Te Kauwhata Water Association has a maximum consented water take of 22,600 m^3/day. The Consent expires on 30 June 2024.

2.14 It is understood that Watercare currently has agreement to take up to 4,000 m^3/day from the Te Kauwhata Water Association allocation, and that the full 22,600m^3/day water take is not currently being utilised. There is therefore supply available.

2.15 The Te Kauwhata WTP treats an Average Daily Volume of 1,713 m^3/day and a Peak Daily Volume 3,262 m^3/day (2018 Water Safety Plan).

2.16 It is anticipated that as part of the MWSS Watercare would seek an increase take from the Te Kauwhata source to provide security of supply into Huntly and Ngaruawahia, via a pipeline from Te Kauwhata WTP to Huntly, which would facilitate the long-term servicing of the OSP.

Mid Waikato Servicing Strategy (MWSS)

2.17 The options considered for servicing the OSP area, in particular for wastewater servicing, need to be cognisant of the MWSS and the long-term options that are likely to come out of this study. Integration of the interim options and long term MWSS option is an important consideration.

2.18 The MWSS project was established to identify a long-term 50-year servicing strategy for water and wastewater supply for the mid-Waikato area, stretching from Meremere to Huntly. Objectives of the MWSS are understood to account for growth, improve treatment quality and resolve issues at existing WWTPs within the mid-Waikato area.

2.19 WSL has indicated that the MWSS report has been completed and will be communicated during July 2020 and that it will give much more clarity to

1 With the take limit increasing to 6,800m3/day in 2027, 6,900m3/day in 2033 and 7,000m3/day in 2039.

solutions for the development. WSL has also confirmed that servicing the OSP area in the medium to long term is considered within the MWSS.

2.20 Given the scale of the infrastructure to be designed, consented and constructed as a result of the MWSS, there is likely to be lead time of at least 5 years prior to connections being available to it. Therefore, APL needs to provide for short term and medium-term solutions, that is, for a period of 0-2 years, and 3 - 6 years, with connection to a MWSS solution anticipated to be available from approximately 2027.

Staging overview

2.21 The tables below provide an overview of the APL development year, stage, approximate timeframe and wastewater and water supply demand and associated options/comments relating to this development staging. The staging allows for a staged approach to wastewater and water supply servicing broken down on a Years 0-2 (short-term), 3-6 (medium/interim term) and 7+ (long-term) year basis.

Wastewater staging

Year	Stage	Approximate timeframe	PDF WW (m^3)	WW Option /comments
0	Short- term	2020	0	Earthworks phase
1	Short -term	2021	3	On site biocycle
2	Short -term	2022	3	On site biocycle
3	Medium-term	2023	772	Huntly WWTP
4	Medium-term	2024	1,239	Huntly WWTP
5	Medium-term	2025	1,729	Huntly WWTP
6	Medium-term	2026	2,152	Huntly WWTP
7	Long-term	2027	2,547	MWSS (or Huntly WWTP[2])
8	Long-term	2028	2,797	MWSS (or Huntly WWTP)
9	Long-term	2029	3,058	MWSS (or Huntly WWTP)

Water supply staging

Year	Stage	Approximate timeframe	2x ADD WS (m^3)	WS Option /comments
0	Short- term	2020	0	Earthworks phase
1	Short -term	2021	0.975	On site

2 Depending on when the MWSS solution is available.

2	Short -term	2022	3.25	On site
3	Medium-term	2023	570	Huntly
4	Medium-term	2024	1037	Huntly
5	Medium-term	2025	1466	Huntly
6	Medium-term	2026	1916	MWSS (Te Kauwhata)
7	Long-term	2027	2290	MWSS (Te Kauwhata)
8	Long-term	2028	2559	MWSS (Te Kauwhata)
9	Long-term	2029	2793	MWSS (Te Kauwhata)

2.22 Plan provisions are proposed[3] that restrict development until such time suitable water supply and wastewater infrastructure is confirmed to be available. This staging approach is important in ensuring adequate water and wastewater servicing of the OSP Area is in place prior to the development proceeding.

Options available – water supply

2.23 Years 0-2 comprise earthworks and initial factory stages and have low water volume requirements. The water supply needs for this stage can be accommodated through on-site means, including rain water tanks and augmented from an on-site bore (if required).

2.24 In the medium-term (years 3-6), given the consented volume of water take and current average and peak daily demand of the Huntly WTP, there is capacity to supply water to the OSP area for a number of years. However, when the demand would exceed the current consented volume is dependent on when other growth (for instance in Ngaruawahia) would occur. As such, APL has also sought to enable additional water supply sources and has an agreement in place with Te Kauwhata Water Association as shown in the letter attached as Attachment F to the statement of evidence of David Gaze.

2.25 Infrastructure to convey water from the Huntly WTP or from Te Kauwhata to the OSP area provides opportunity for renewals / upgrading of reticulation infrastructure in advance of, but also cognisant of what a MWSS may comprise and where this may be located.

2.26 I consider the utilising of the Huntly municipal supply or Te Kauwhata supply is an effective and efficient option for water supply servicing of the OSP area

3 As set out in the statement of evidence of John Olliver.

in advance of the MWSS solution and pending additional allocation being provided by others due to a shortfall.

Options available – wastewater

2.27 To account for the wastewater constraints, development within the OSP area will be a staged approach with staging applicable to Years 0-2, 3-6 and year 7 onwards.

2.28 In the initial years 0-2 of the APL development will include Stage 1 and 2 of the Sleepyhead factory, with relatively low wastewater demands for up to 50 staff. This will be serviced via an existing on-site system comprising a Biocycle secondary system discharging to land. This system is consented and already in place. During expert conferencing this was agreed between experts as appropriate, provided that maintenance and operations were undertaken in line with manufactures specifications. A commitment to this has been made by APL.[4]

2.29 Years 3-6 are considered the 'interim' phase and would be in place until such time that the MWSS option is on-line. For the interim stage, the preferred option for wastewater servicing for the OSP area is to use the existing capacity within the Huntly WWTP discharge consent while working with the existing operator to support upgrades required to address compliance issues.

2.30 In my opinion, this is the most logical approach to addressing the issue of wastewater servicing, given the significant volumetric discharge consent capacity the Huntly WWTP has, and the challenges being faced by WDC with regards to compliance. APL is committed to working through the necessary funding agreements required for APL to contribute to the upgrades to the Huntly WWTP.[5]

2.31 Conveyance between the OSP area and the Huntly WWTP is approximately 5 kms (direct) or up to 8 kms if longer routes utilising road reserves, etc., were utilised. This can be in place prior to development expected in Year 3. Furthermore, the conveyance system can be designed and configured to take account of the outcome of the MWSS long-term solution, and where that may be located should an alternative WWTP location be confirmed.

2.32 The ultimate wastewater peak daily flow (PDF) from the APL development, based on the design criteria as detailed in the Regional Infrastructure

4 Statement of evidence of David Gaze, paragraph 6.6.
5 Statement of evidence of David Gaze, Section 8.

Technical Specifications, indicates a PDF design flow of less than 3,200/day, with an average daily flow of less than 1,500m^3/day. Delivery of wastewater to the Huntly WWTP would result in an projected typical[6] annual peak day wastewater outflow from the Huntly WWTP of less than 7,500m^3/day (in 2029), when the APL development is overlaid on projected population growth, and allowing for the buffering of flows through the wastewater treatment ponds. This discharge level would therefore remain well within the consented discharge volume of 11,500m^3/day.

2.33 Utilising an alternative sewerage system for the APL development, such as a pressure sewer or vacuum system or a "sealed" gravity sewer system could see reduced peak flows due to reduced infiltration into the network. Further, discussions with WDC and WSL are expected to take place to confirm an acceptable sewerage collection system.

2.34 Potential septicity issues within the conveyance infrastructure is appropriately addressed through the proposed staging of the APL development, the design of the conveyance system, and the range of measures (including chemical dosing, use of smaller pipe diameters or dual pipes, and water flushing) for managing septicity during initial periods of low flow.

Comments on further submissions

2.35 Several further submitters raised concerns around water and wastewater associated with the APL development.

2.36 For wastewater, and as elaborated further through expert conferencing, concern largely focussed on the non-compliant status of discharges from the Huntly WWTP. It was agreed that Huntly WWTP would need to be compliant with consent condition parameters prior (and further) to receiving wastewater discharge from the APL development.

2.37 In the long term, it was also agreed in conferencing that the to-be determined MWSS would be the appropriate solution. Concern was expressed that there is insufficient detail available to have confidence that the MWSS will deliver on the Vision and Strategy. Any MWSS solution would need to go through a consenting process to which the Vision and Strategy would be a key determining factor.

6 I.e. excluding cyclones Debbie and Cook.

2.38 For water supply, concern was raised around the potential need for additional water takes, and whether this would align with the Vision and Strategy. Any additional water take would also need to go through consenting processes to which the Vision and Strategy would apply. Other water supply options are also available which may not require seeking additional allocation over and above existing consents.

Comments on the Council Officers' report

2.39 Ms Trenouth's s42A report raised the need for water and wastewater servicing to be viable. I have outlined options for both water and wastewater servicing of the site which I consider to be viable, providing alternatives to those put forward in the original APL submission, and which utilise existing infrastructure with capacity to meet the requirements of the APL development.

2.40 It is important that the Huntly WWTP and WTP do not exceed consent requirements as a result of the APL requirements and forecast demands placed on this key infrastructure. APL will work with WDC and WSL to address these issues.

2.41 Septicity issues raised in the s42A report, and supporting technical review, also raise issues for potential septicity issues. It was agreed through expert conferencing that these can be appropriately managed through a range of measures (including chemical dosing, use of smaller pipe diameters or dual pipes, and water flushing).

Expert conferencing

2.42 During expert conferencing the issue was raised that the Huntly WTP water take will be fully allocated within the timeframe that the APL Ohinewai development would require water when taking into account 2,000m^3/day required to service growth in Ngaruawahia. I consider that there is currently allocation available at Huntly, however, when the current consent limit is exceeded will be influenced by when the Ngaruawahia growth and associated water demand occurs. Therefore, it is a function of seeking further allocation to meet combined Ngaruawahia and Ohinewai demand – either via seeking further consented allocation or alternatively trading of water allocation.

2.43 I consider that the proposed water and wastewater servicing for the APL Ohinewai development can be configured (and timed) to ensure that

investments made now do not preclude what a preferred option may be for the long term.

3. SUB REGIONAL SETTING

3.1 The driving legislation that governs wastewater and water supply activity in the area are the various Settlement Acts and Te Ture Whaimana o Te Awa o Waikato (the Vision and Strategy for the Waikato River). At a practical operational level, the Vision and Strategy drives and dictates almost all of the decisions related to the Three Waters within the Waikato River catchment.

3.2 In order to obtain a resource consent, the decision of the Environment Court in *Puke Coal*[7] is to the effect that an applicant for consent for discharges, such as WWTPs, needs to demonstrate an element of betterment to give effect to the Vision and Strategy. The creation of additional municipal discharges would be difficult to demonstrate alignment with the Vision and Strategy. In my view, it is therefore preferable to utilise existing infrastructure and consented water takes and discharges if capacity is available whilst helping to address identified current compliance issues.

3.3 Ohinewai and the wider Sub Regional area have been included within the Hamilton to Auckland (H2A) Corridor work program. The key outcomes of the plan in relation to the Three Waters, is to:

Address our waters challenges by taking a boundary less and 'best for river' approach to achieve the Te Ture Whaimana - Vision and Strategy for the Waikato River, and deliver Hamilton to Auckland Corridor Plan growth management objectives.

- *Waikato sub-regional three waters study*
- *Designing and developing a cross-regional blue-green open space and recreational network*

3.4 A significant amount of work has recently been undertaken in relation to Three Waters in the sub region, within the context of H2A. A key outcome of this work is the development of the MWSS, due for completion in July 2020.

3.5 Through engagement with WSL, by both myself and Mr Harty, I understand that the APL Ohinewai development has been considered within the MWSS.

7 *Puke Coal Ltd v Waikato Regional Council* [2014] NZEnvC 223.

3.6 WDC was also successful in securing a significant amount of funding to enable Te Kauwhata housing to progress. This funding was secured in 2018 through Central Government's Housing Infrastructure Fund (HIF) process (through the development of a BBC, work undertaken by GHD). A HIF funding of $38m was allocated to support a total infrastructure requirement of $72.2 million, spread across Water, Wastewater and Transport. This helps inform the need for a MWSS, which takes into account needs and challenges throughout the mid-Waikato area and to give effect to the Vision and Strategy.

4. EXISTING ASSETS AND CONTEXT OF SERVICING THE APL SITE

Wastewater

4.1 Where possible, there are significant benefits for utilising existing infrastructure – offering the ability for developer contributions, to upgrades being offered to provide for discharges being compliant and providing efficiencies.

4.2 The Huntly WWTP is a pond-based system with ultraviolet treatment and wetlands and is located at East Mine Road, north of Huntly. The treated wastewater is discharged to the Waikato River. The consented discharge volume is 11,500m^3/day; however, the typical annual daily peak outflow is currently just under 5,000m^3/day. The discharge is non-compliant with respect to total suspended solids and ammoniacal nitrogen. Suspended solid levels, in particular, have been non-compliant for the last 3 reporting years.

Water supply

4.3 The Huntly WTP provides municipal water supply to Huntly with water treatment that meets the requirements of Drinking Water standards in New Zealand. The consented water take is for 6,700 m^3/day[8], and has an existing average daily take of just over 3,000m^3/day with a peak of approximately 4,100m^3/day (2018 Water Safety Plan). The Huntly WTP and can also supply water to Ngaruawahia since December 2018, with a potential demand of up to 2,000m^3/day.

4.4 The options considered for servicing the APL Ohinewai development, particularly for wastewater servicing, need to be cognisant of the MWSS and the long-term options that are likely to come out of that study. APL is liaising

8 With the take limit increasing to 6,800m3/day in 2027 and 6,900m3day in 2033.

with WDC and WSL in order to inform and support the development of the MWSS.

4.5 The MWSS provides an opportunity to look at the mid to long term servicing solutions in consultation with WSL. WSL has confirmed that servicing of the Ohinewai development is included and will be accounted for in the outcomes of the MWSS.

4.6 There is also the potential that any investments in the medium/interim term serving of the Ohinewai development may support the mid to long term direction outlined in the MWSS. WSL has committed to share an early version of the MWSS in July to initiate discussion on this topic.

5. RECOMMENDED OPTIONS – WATER SUPPLY

5.1 The staging of the APL development provides for a staged approach to water supply servicing with developing approaches for years 0-2 (short-term), 3-6 (medium-term) and 7+ (long term).

Short-term – Years 0-2

5.2 In the short-term (years 0-2 of the APL development), water use will be low due to construction phases and the initial phases of the Sleepyhead factory requiring only domestic water needs. During this time, water supply will be from on-site sources, being an on-site rainwater re-use tank of 800m^3 and if required, augmented through an on-site bore (permitted to be able to take up to 15m^3/day).

Medium term – Years 3-6

5.3 The preferred option for supplying water to the proposed development in the medium-term would be to utilise the existing capacity within the Huntly WTP or Te Kauwhata water take (held by the Te Kauwhata Water Association) and to service the Ohinewai development via a dedicated delivery main. As the initial APL Ohinewai development would be serviced on-site, connection to the WDC reticulated network is not required until approximately 2023.

5.4 Given the consented volume of water take and average and peak daily demand there is sufficient capacity at Huntly WTP for the initial years, however, the timing of when the consented limit will be exceeded will be dependent on when other growth occurs (for instance in Ngaruawahia). Therefore, in determining the ability to service, additional sources such as seeking allocation from Te Kauwhata Water Association or other allocation

holders. The existing Te Kauwhata Water Association water take consent is due to expire in June 2024.

5.5 APL has an agreement with the Te Kauwhata Water Association (TKWA) by which TKWA will supply water to APL if requested.[9] The Te Kauwhata Water Association will also incorporate capacity for supply to the development into the re-consenting of their water take consent.

5.6 It is considered that there are a number of ways in which the consented take quantity of the WDC water permit at Huntly WTP could be increased, by either applying for an increased water take, or for the transfer of excess unneeded allocation from other consent holders.

5.7 APL would construct the pipeline from the Huntly WTP or from Te Kauwhata WTP (depending on what is determined most appropriate) to the APL Ohinewai development, and this provides opportunity for renewals / upgrading of reticulation infrastructure. Potential retention time / age of the water could be addressed through chlorination etc. of the water throughout the reticulation system in the development – however, the detail of this could be undertaken at a later time, but we can confirm that it is technically feasible.

5.8 Discussions with WSL have also indicated that they are actively engaged with TKWA with regards to the upcoming renewal of the irrigation consent held by the Association. These discussions with TKWA may open up avenues to increase water allocation and take at the Huntly WTP. APL have an agreement in place that TKWA will supply water to the APL Ohinewai development.

5.9 Whilst Development Contributions (DCs) may need to be paid under these options (either Huntly WTP or Te Kauwhata WTP), these can be discussed with WDC and a delivery pipeline and reservoir(s) (if required) can be constructed and vested in Council, offsetting that portion of cost. Capacity increase at the plant and other infrastructure investment could also be looked into to offset the required DC payments.

5.10 I consider the utilising of the Huntly municipal supply or Te Kauwhata water supply is an effective and efficient option for water supply servicing of the APL Ohinewai development.

[9] Letter attached as Attachment F to the statement of evidence of David Gaze.

5.11 Long Term: I consider the above options can be developed cognisant of the long term to-be-determined MWSS Solution.

6. RECOMMENDED OPTIONS - WASTEWATER

6.1 As detailed earlier, the staging of the APL Ohinewai development enables a staged approach for wastewater servicing over the short-term (years 0-2), medium term (years 3-6) and long-term (years 7+).

6.2 During the initial phases of the APL Ohinewai development, wastewater volumes are low and would be serviced on-site, via an existing Biocycle Aerated Wastewater Treatment system discharging to land.

6.3 The preferred option for managing wastewater from the Ohinewai development in the medium-term (years 3-6) is to utilise the existing consent capacity within the Huntly WWTP. This does not result in any additional discharge points to the environment and also utilises the existing footprint and designation of the current plant.

6.4 In my view, this is the most logical approach to addressing the issue of wastewater servicing, given the significant volumetric consent capacity the Huntly WWTP and it also provides the opportunity to assist in resolving challenges being faced by WDC with regards to compliance. Positive outcomes are also expected with respect to environmental and cultural matters as plant performance will be improved as a result of the investment.

6.5 APL is committed to working through the necessary funding agreements required for APL to contribute to the upgrades to the Huntly WWTP[10] and discussions between the parties are in progress. Further information on these arrangements are likely to be available prior to or at the hearing.

6.6 Due to the distance and relative elevation of the development site and the Huntly wastewater treatment plant it is anticipated that wastewater would be conveyed via a wastewater pump station and rising main(s).

6.7 We have identified four options for the sewerage of the APL Ohinewai development: consisting of traditional (gravity), "sealed" sewer system (gravity) vacuum and pressure sewer systems. Due to the anticipated high groundwater levels over much of the development alternative systems such as "sealed" sewer systems, vacuum or pressure networks could significantly

10 Statement of evidence of David Gaze, Section 8.

reduce infiltration potential and corresponding peak flows delivered to the Huntly WWTP.

6.8 At 2023, the residential component of the APL Ohinewai development would commence and the volumes of wastewater generated would warrant conveyance to the Huntly WWTP. This is the timeframe that a conveyance pipeline would need to be in place and compliance with the Huntly WWTP discharge consent confirmed.

6.9 During initial stages of the development the projected flow volumes indicate that septicity may be a concern. However, this can be addressed through a range of measures, including chemical dosing, use of smaller pipe diameters or dual pipes, and water flushing.

6.10 The discharge from the Huntly WWTP currently does not comply with some of its resource consent conditions, relating to total suspended solids and ammoniacal nitrogen. Whilst APL's contribution to improvements would be on the basis that the WWTP was in an optimally performing condition, discussions with WDC and WSL regarding the potential improvements that will be necessary will be undertaken. The agreed improvements could conceivably be delivered via developer led works or via direct funding contributions for improvements.

6.11 Consideration will also be given to whether the approach for servicing Ohinewai wastewater needs can be co-ordinated with an approach that brings the Te Kauwhata wastewater to Huntly or an alternative WWTP location if such a long-term solution is determined through the MWSS. The wastewater pipeline would be directly to the Huntly WWTP.

6.12 Overall, the long-term solution would require conveyance of wastewater from Ohinewai to Huntly (or vice versa) irrespective of the location where a long-term MWSS solution is implemented. I consider that servicing for wastewater via the Huntly WWTP is not only practicably feasible but the most efficient use of resources. The outputs of the MWSS are important in this regard, as any work and investment undertaken at Huntly WWTP needs to either be fit for purpose (medium term operation) or be able to be re-purposed for whatever solution emerges as the preferred long term solution from the discussions underway.

7. COMMENTS ON FURTHER SUBMISSIONS

7.1 Concern was expressed in several further submissions in terms of effects associated with wastewater should the APL development and other large scale developments in the Ohinewai area go ahead.

7.2 Proposed plan provisions are being put forward in the evidence of John Olliver that restrict development until such time suitable water supply and wastewater infrastructure is confirmed to be available. This staging approach is important in ensuring adequate water and wastewater servicing of the APL Ohinewai development is in place prior to the associated demand eventuating.

7.3 For wastewater, and as elaborated on further through expert conferencing, concerns largely focussed on the medium-term solution by which the Huntly WWTP would be used to treat and discharge wastewater from the APL Ohinewai development. The Huntly WWTP is currently not meeting its discharge consent requirements in relation to total suspended solids and ammoniacal nitrogen. It was agreed at expert conferencing that the Huntly WWTP would need to be compliant with its discharge consent prior to receiving wastewater flows from the APL Ohinewai development – which was generally supported by all parties at conferencing. I consider that upgrades to achieve this are technically feasible and APL would work with WDC to agree a way forward to achieve this in the required timeframes.

7.4 In the long term, it was also agreed in conferencing that the to-be determined MWSS would be the appropriate solution. Concern was raised regarding the fact that there is insufficient detail available to have confidence that the MWSS will deliver on the Vision and Strategy. I note that any MWSS solution would need to go through a consenting process where the Vision and Strategy would be a key determining factor.

7.5 For water supply, concern was expressed about the potential need for additional water takes, and whether this would align with the Vision and Strategy. Any additional water take would need to go through consenting processes where the Vision and Strategy would be a key determining factor. Other water supply options are also available which may not require seeking additional allocation over and above existing consents.

8. COMMENTS ON COUNCIL OFFICERS' REPORT

8.1 Section 220 of the s42A report raises the need for water and wastewater servicing options to be viable. Section 222 of the s42A report also notes that

no budget is allocated in the current long term plan for the extension of public networks and treatment plant upgrades to service the development.

8.2 I understand that APL would provide for the connection of conveyance infrastructure, and work with WDC and WSL to ensure that the additional requirements placed on WDC infrastructure as a result of the development do not result in non-compliances or exceedances or, if they do, put a plan in place to deal with them prior to the forecasted timeframes.

8.3 I agree with the statement in section 224 of the s42A report that securing access to an allocation from consented water takes and/or other secure water trading allocation agreements is the most appropriate for the consideration of the proposed rezoning. For water supply, there is limited capacity at Huntly WTP, but sufficient capacity within the Te Kauwhata water take consent.

8.4 For wastewater there is adequate capacity and connectivity to the Huntly WWTP, as detailed earlier in my evidence. As outlined in the evidence of Mr Gaze, discussions are underway between APL, WDC and WSL in this regard.

8.5 I acknowledge that there is uncertainty around a long term water supply option for this part of the district; however, that is being addressed as part of the MWSS being undertaken (to be completed by approximately July-2020). The long term (from an approximate 7 year timeframe onwards) will therefore be addressed as part of the MWSS – and it is staging and level of demand in the lead up to this long-term solution being in place which is the main issue.

8.6 During expert conferencing it was raised that the Huntly WTP water take will be fully allocated within the timeframe that the OSP Area would require water when taking into account 2,000m^3/day required to service growth in Ngaruawahia. I consider that there is currently allocation available at Huntly, however, when the current consent limit is exceeded will be influenced by when the Ngaruawahia growth and associated water demand occurs. Therefore, it is a function of seeking further allocation to meet combined Ngaruawahia and Ohinewai demand – either via alternatively trading of water allocation, or linking Huntly to the Te Kauwhata WTP.

8.7 Section 232 of the s42A report acknowledges that there it will be 5-10 years before MWSS water and wastewater solution may be available. Options for water and wastewater servicing options as detailed throughout my evidence will bridge this gap.

9. CONCLUSIONS

9.1 From the analysis that I and my team have completed, I have concluded that:

(a) Proposed development for years 0-2 can be appropriately managed on-site via existing wastewater infrastructure and proposed water supply tanks included in Stage 1 and 2 of the Sleepyhead factory development.

(b) For the medium term, Years 3-6, it is appropriate and practicably feasible that the wastewater and water servicing of the OSP area is via the Huntly WWTP and Huntly WTP or Te Kauwhata WTP.

(c) There is sufficient capacity within the Huntly WWTP discharge consent to take wastewater flows from the development, and conveyance infrastructure offers an opportunity for future proofing connections to a yet-to-be-determined MWSS long-term solution. APL will work with WDC and WSL to provide an appropriate contribution to the plant upgrade so the performance of the WWTP are managed and responded to appropriately. It is intended that further information on any arrangements will be presented prior to or at the hearing.

(d) Any septicity issues in the conveyance infrastructure from the APL development to the Huntly WWTP can be appropriately managed.

(e) There is sufficient capacity at the Huntly WTP to supply the development, with additional water take required from years 3 (approx. 2023), however, when the consent limit of this water take is reached will depend on growth uptake of other areas such as Ngaruawahia. As such APL have also sought additional water supply arrangements and sources such as Te Kauwhata – with an agreement in place between APL and the Te Kauwhata Water Association.

(f) For the long term, APL is actively discussing with WDC and WSL options relating to servicing the OSP area via the MWSS solutions under development. Information on the MWSS solutions are anticipated to be available in July 2020.

(g) Plan provisions are proposed in the evidence of John Olliver that restrict development until such time suitable water supply and wastewater infrastructure is confirmed to be available.

(h) In my view, the options presented for wastewater and water servicing of the OSP area are at an appropriate level and conceptually sound to enable the proposed re-zoning to be approved.

Robert J H White
9 July 2020