

Hauraki District Council Feedback

Waihi North Fast-track Application

Table of Contents

1.	<u>HDC Cover Letter (signed)</u>	3
2.	<u>Legal Submissions by Brookfields</u>	7
3.	<u>Planning Feedback by Bentley & Co, informed by review and assessment of the Waihi North Project application in relation to</u>	38
4.	<u>Contaminated land (hdGEO)</u>	65
5.	<u>Heritage</u>	68
6.	<u>Transportation</u>	70
7.	<u>Hazardous substances</u>	79
8.	<u>Memo (final) Social</u>	82
9.	<u>Memo (final) Geotechnical</u>	97
10.	<u>Memo (final1) Blasting and vibration</u>	105
11.	<u>Memo (final) Lighting</u>	115
12.	<u>Memo (final) Acoustics</u>	120
13.	<u>Memo (final) Landscape, natural character, visual</u>	141
14.	<u>Memo (final) Terrestrial Ecology</u>	185
15.	<u>Memo (final) Economics</u>	202
16.	<u>HDC Conditions - Tracked Version (final)</u>	208
17.	<u>Combined HDC WRC Conditions - Tracked Version (final)</u>	297

In response quote reference: 3924492
In response enquire to: Leigh Robcke



25 August 2025

Elliot Dennett
Team Leader, Fast-track Applications
Environmental Protection Authority

Via email to: substantive@fasttrack.govt.nz

Dear Elliot

Hauraki District Council comments on Waihi North Fast-track Application (FTAA-2504-1046)

I am writing to provide 'high level' and 'detailed' comments to the Environmental Protection Authority on the Waihi North Fast-track application. The comments are made on behalf of Hauraki District Council (HDC) in terms of section 53 of the Fast-track Approvals Act 2024 (FtAA).

Attached to this letter you will find legal submissions and planning feedback, with a number of supporting memoranda from experts engaged by HDC to review the Waihi North application.

Prior to providing comments from HDC, I wish to provide some very brief information regarding past and current mining activity in Waihi and the wider District. This may be relevant to the Panel in terms of understanding the local and wider community interest/s, the economic and regulatory environment and the need for robust and coherent conditions.

Context

The Hauraki District is a relatively small district with a usually resident population of 21,318 people (2023 Census). Mining has been part of the landscape in and around Waihi and the Karangahake Gorge since the 1870s. Mining ceased around 1952. Current mining recommenced in earnest with the granting of a mining licence in 1987 which enabled the Martha Mine to be developed as an open pit mine (the Martha Pit) in the centre of Waihi. At the time of the 2023 Census Waihi Town had a population of 5,850 people.

The Martha Pit area was extended via a resource consent granted in 1999 and five underground mines have since been consented: Favona (2005), TRIO (2011), Correnso (2013), Slevin (2016) and Martha Underground (2019).

The Martha Mineral Zone (MMZ) of the Hauraki District Plan was developed in 1997 to provide for mining activity authorised via the [now expired] mining licence and the MMZ was subsequently enlarged in 2010 to also include land covered by the Extended Martha Mine consent [now also expired]. The MMZ covers the current extent of the Martha Pit and adjoining land, including land affected by pre 1952 mining, together with the processing plant and the tailings storage areas. Both the mining licence and the Extended Martha Mine

consent have been incorporated into the Hauraki District Plan as permitted activity standards.

HDC staff actively monitor conditions of the resource consents granted by Council and provisions of the mining licence and Extended Martha Mine consent that live on via the District Plan. The current level of compliance is very high, with non-compliance issues of only a minor or technical nature. The Council emphasises that it has extensive experience in the monitoring of mining consents in the Waihi Area and has experienced staff and expert contractors engaged in this work.

OceanaGold purchased the Martha Mine and the associated processing and tailings storage facilities from Newmont Mining Corporation in 2016. The Social Impact Management Plan Monitoring Report from 2023 recorded that OceanaGold employed around 460 full time equivalent employees/contractors, around 80% of whom either lived in Waihi Town, or within the Waihi Area (which is within a 30km area from Waihi that includes Waihi Beach, Athenree, Katikati, Te Aroha and Paeroa). The Infometrics Quarterly Economic Monitor (March 2024) records that in the year to March 2024 mining contributed 21.3% of Hauraki District Gross Domestic Product (more than agriculture, forestry and fishing at 17.3%) compared to 0.8% for New Zealand (with agriculture, forestry and fishing at 5.0%).

Whilst there has been significant gold mining activity in Waihi for many years now, there are ongoing socio-economic challenges for Waihi Town when compared to the Waihi Area and/or New Zealand, as set out in the Social Impact Assessment attached to the substantive Waihi North FtAA application, which notes:

- A New Zealand deprivation index scale score (in 2023) of 8.4 for Waihi Town compared to 6.8 for Waihi Area and 5.6 for New Zealand.
- An unemployment rate (2023 Census) of 3.3% for Waihi Town compared to 2.5% for Waihi Local Area and 3.0% for New Zealand.
- A higher annual average NEET rate (15-24 year olds not in employment, education or training) of 16.9% for Waihi Town compared to 12.4% for New Zealand.

HDC has a focus on improving the economic and social wellbeing of our communities where we're able, to ensure more of our residents have jobs, liveable income levels, and the resources needed to achieve a better standard of living.

Within the above context, HDC recognises that mining is a legitimate activity in New Zealand so long as potential adverse effects are able to be managed via consent conditions (i.e. avoid, remedy, mitigate) and by maximising the likely benefits/positive effects.

High Level Comments

Consent Conditions:

As indicated above, and referred to in the application material, there are a variety of mining related consents/authorisations in play in the Waihi Area. HDC notes the breadth of approvals sought and the complexity of coordinating conditions across the 6 Areas proposed with those consents/authorisations that already exist across some of those Areas. Despite this, every effort needs to be made to ensure the conditions are robust, streamlined and able to be monitored (and reported on) so that, as much as possible, potential adverse effects on landowners and the wider community are avoided, remedied

or mitigated. This has been a major focus for HDC when providing detailed comments on the application and the proposed conditions.

Rehabilitation and Closure:

If the Waihi North Project is approved via the FtAA process then it is proposed that additional land be added to the Rehabilitation and Closure Plan for the existing mine site (i.e. Martha Pit and surrounds, the conveyor, the existing processing plant, and tailings storage facilities 1A and 2), additional monies be added to the rehabilitation and closure bond and subsequently, additional monies be added to the capitalisation bond for ongoing management by the Martha Trust, in perpetuity.

With the additional lands there may be increased opportunities for community, recreation and tourism activities together with a need for additional environmental monitoring.

HDC considers that the Rehabilitation and Closure Plan that is proposed for the Waihi North operation should integrate with the Rehabilitation and Closure Plan currently applying to other major mining operations undertaken by OceanaGold Ltd in the Waihi Area.

HDC suggests that it would be appropriate for there to be a comprehensive and integrated review of the Rehabilitation and Closure Plan for OceanaGold's Waihi mining operations and that this review be initiated as part of the preparation of the Rehabilitation and Closure Plan for the Waihi North Project, if approved.

Related to this, HDC also suggests that a 'first principles review' of the bonds (the Rehabilitation and Closure Bond and the Capitalisation Bond) be undertaken by OceanaGold as part of the process for setting the bond quantum's, should the Waihi North Project be approved. Council envisages that the bonds will incorporate all mining activities undertaken by OceanaGold in the Waihi Area.

The assumptions upon which the setting of the bonds are based are an essential element of the reviews that HDC is suggesting be undertaken. In this regard, one such key assumption that HDC is emphasising is that the Rehabilitation Bond should be called at that same time the Capitalisation Bond is called.

Need to Maximise Potential Social Benefits/Minimise Negative Impacts:

Council's social impact expert has reviewed the application and the relevant supporting documents, and has emphasised the need to maximise skills and training development for the local community (via local procurement, youth skills development, etc.) and to minimise potential negative impacts from increased demand for housing.

Social uplift of the community is a potential benefit but will only be realised with firm/measurable consent conditions. Negative effects on housing appear to be underestimated and amended conditions are recommended to address this prospect.

Biodiversity Project:

HDC notes the Waihi North Biodiversity Project, covering almost 18,870ha of land within the HDC and TCDC areas, is included in the Waihi North Project with the aim that there will be a net benefit to biodiversity values for the Coromandel Forest Park (over and above mitigation associated with any adverse effects from mining related activities).

HDC supports the Biodiversity Project and the inclusion of consent conditions that 'tie' the Project to the FtAA process. It will be important that the Department of Conservation is

involved in Biodiversity Project discussions to co-design outcomes with iwi. It will also be important that the available funds be used for actual pest control activities - with targets, monitoring and reporting to demonstrate effectiveness.

Council Water Supply:

The Council's main municipal water supply for Waihi town originates from the upper reaches of the Ohinemuri River, to the east of Waihi and downstream of the proposed Wharekirauponga underground mine and Willows Road surface facilities area.

Council requires assurances that the quality and quantity of Council's water supply will not be adversely affected by the proposed project, particularly given the ongoing growth that is anticipated for Waihi Town.

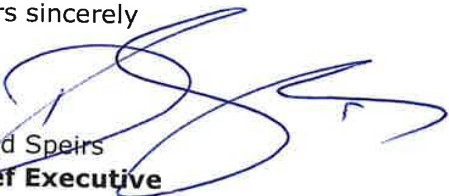
In this respect the Council notes the conclusions reached in the water related technical reports submitted with the substantive Waihi North FtAA application (surface and groundwater, quality and quantity), and the proposed Waikato Regional Council consent conditions which have a rigorous monitoring and reporting focus, which HDC supports.

Detailed Comments

- Legal Submissions by Brookfields
- Planning Feedback by Bentley & Co, informed by review and assessment of the Waihi North Project application in relation to:
 - Contaminated land (hdGEO)
 - Heritage/archaeology (Neville Ritchie)
 - Transportation (Pinnacles Civil)
 - Hazardous substances (Resources Consulting)
 - Social impacts (Quigley and Watts)
 - Geotechnical engineering/ground stability (Dalmour Pty Ltd)
 - Blasting and vibration (Blastotechnology)
 - Lighting (Kearn Consultants)
 - Acoustics (Styles Group)
 - Landscape, visual and natural character (Mansergh Graham)
 - Terrestrial ecology (Bluewattle Ecology/Alliance Ecology)
 - Economics (Market Economics)
- A 'track-changed' version of the Proposed Conditions for the Hauraki District Council Land Use Consents
- A 'track-changed' version of the Proposed Conditions Common to the Hauraki District Council and Waikato Regional Council

Hauraki District Council hopes that the above high level and the attached detailed comments are of use to the Panel in its consideration of the Waihi North Fast-track application, and is willing to participate in ongoing communications with the applicant and the Panel to assist the Panel in coming to a decision on the application.

Yours sincerely


David Speirs
Chief Executive

BEFORE AN EXPERT CONSENTING PANEL

IN THE MATTER of the Fast-track Approvals Act 2024 (**FTAA**)

AND

IN THE MATTER of Waihi North (FTAA-2504-1046)

MEMORANDUM OF COUNSEL FOR HAURAKI DISTRICT COUNCIL
Dated: 25 August 2025

Andrew Green
Partner
green@brookfields.co.nz
Telephone No. 09 979 2172
P O Box 240
DX CP24134
AUCKLAND

BROOKFIELDS
LAWYERS

2949137 / 702720

MAY IT PLEASE THE PANEL

1. INTRODUCTION

- 1.1 This memorandum is filed in response to [Minute 1](#) on behalf of Hauraki District Council (the **Council**).
- 1.2 Minute 1 was issued by the Panel on 28 July 2025 pursuant to section 53 of the Fast-track Approvals Act 2024 (**FTAA**). It invites the Council to provide written comments¹ on the substantive application submitted by Oceana Gold (New Zealand) Limited on 10 April 2025 for the Waihi North Project (**WNP**).
- 1.3 The structure of this memorandum is as follows:
 - (a) **Section 2:** Executive summary;
 - (b) **Section 3:** The legal framework, including an explanation of the framework for decision-making under the FTAA;
 - (c) **Section 4:** Legal considerations in relation to issues raised by the Council's technical experts;
 - (d) **Section 5:** The outcome of the Council's assessment of the WNP to date; and
 - (e) **Section 6:** Conclusions and recommendations arising from that assessment.

2. EXECUTIVE SUMMARY

Process Matters

- 2.1 As the Planning Memorandum prepared by Craig McGarr dated 21 August 2025 (**Planning Memo**) states:²
 - (a) The specialists engaged by the Council have been involved iteratively with the applicant since as early as 2020 in respect of the nature,

¹ Written comments for the purposes of section 53 "may include the provision of technical reports, legal advice, submissions, personal statements and correspondence". See clause 11.2 of the Fast-track Approvals Act 2024: Panel Conveners' Practice and Procedure Guidance dated 22 July 2025, available at: https://www.fasttrack.govt.nz/_data/assets/pdf_file/0022/8680/Panel-conveners-practice-and-procedure-guidance.pdf

² Planning Memo, pages 2-3.

scope, and framing of the proposal for which approval has been sought.

- (b) The Council feedback has included:³
 - (i) Iterative comments on versions of the proposed draft conditions.
 - (ii) Queries as to how the project will integrate with the suite of existing resource consents/authorisations held by the applicant for mining and mining related activities in the District that overlap with the WNP.
 - (iii) Comments on the proposed draft conditions concerning the power to appoint trustees to the Martha Trust, the iwi liaison committee, and mechanisms for consultation and participation in future processes, including the predator control plan.
 - (iv) Queries in respect of the appropriateness and suitability of the proposal to 'roll over' conditions from previous consents/authorisations, including those which require actions of third parties and the powers attributable to such parties.

- 2.2 The pre-lodgement engagement process has allowed the Council to gain a clear understanding of the proposal, enabling it to focus and refine its feedback on the outstanding matters that must be addressed for consent to be granted.

Summary of the Council's Assessment

- 2.3 The full details of the Council's assessment are contained in the Planning Memo and the referenced technical specialist memoranda. A summary of the outcome of this assessment is provided below (also see **Section 5** of this memorandum for further details).
- 2.4 Under the FTAA, the Panel must apply a specific decision-making framework that:

³ Ibid, page 3.

- (a) Gives the greatest weight to the FTAA's purpose of facilitating infrastructure and development projects with significant regional or national benefits;
- (b) Incorporates the provisions of Parts 2, 3, 6 (excluding section 104D), as well as Parts 8 to 10 of the Resource Management Act 1991 (**RMA**);
- (c) Requires evidence-based assessment of claimed benefits. The listing of a project under the FTAA does not pre-determine the extent of regional or national benefits, and the Panel must independently assess whether the project in fact delivers the claimed benefits.

2.5 Under section 85 of the FTAA, the Panel may decline an approval sought in the substantive application where the 'real-world' adverse impacts are sufficiently significant to be out of proportion to the project's regional or national benefits (after taking into account potential conditions and modifications to the proposal). We address this 'proportionality test' in greater detail in **Section 3** below when discussing the legal framework.

2.6 As noted in the Planning Memo, the Council's assessment has not identified any adverse impacts that cannot be addressed through sound conditions. There are, however, some outstanding issues concerning the Applicant's proposed draft consent conditions. If the Council's concerns and recommendations regarding the proposed conditions are satisfactorily addressed, it will be satisfied that consent can be granted.

2.7 The Planning Memo references supporting memoranda in relation to:

- (a) Contaminated land (hdGeo);
- (b) Heritage/archaeology (Neville Ritchie);
- (c) Transportation (Pinnacles Civil);
- (d) Hazardous Substances (Resource Consulting);
- (e) Social Impacts (Quigley and Watts);
- (f) Geotechnical engineering/ground stability (Dalmour Ptd Ltd);
- (g) Blasting and vibration (Limray Pty Ltd T/A Blastotechnology);
- (h) Lighting (Kearn Consultants);

- (i) Acoustics (Styles Group);
- (j) Landscape, visual and natural character (Mansergh Graham);
- (k) Terrestrial ecology (Bluewattle Ecology / Alliance Ecology); and
- (l) Economics (Market Economics).

2.8 The Planning Memo also references:

- (a) A 'track-changed' version of the Proposed Conditions for the Hauraki District Council Land Use Consents; and
- (b) A 'track-changed' version of the Proposed Conditions Common to the Hauraki District Council and Waikato Regional Council.

2.9 The 'tracked-changed' version of the proposed consent conditions sets out the changes required to the proposed consent conditions to incorporate the Council's feedback. The specialist memoranda also outline some observations on other draft conditions where more complex changes are required. Specifically:

- (a) The specialist ecological memorandum prepared by Matt Baber of Alliance Ecology Ltd and Gerry Kessels of Bluewattle Ecology, and the specialist landscape, natural character and visual memorandum prepared by David Mansergh of Mansergh Graham Landscape Architects Ltd, identify that the Applicant will need to revise and resubmit certain draft management plans. As an alternative, the consent conditions could be amended to incorporate adequate detail regarding the requirements for the management plans. This would allow the plans to be resubmitted post-decision for certification by the Council(s).
- (b) Mr Styles has noted that there will be some activities that are not part of the WNP that have the potential to generate cumulative noise effects. Clarification is therefore required from the Applicant to identify if the noise effects of the WNP in combination with the noise effects of the Applicant's other consented activities will result in cumulative noise effects. If cumulative noise effects are anticipated, the approach established by the expert panel for the Bledisloe North

Wharf and Fergusson North Berth Extension fast-track project⁴ - where conditions required certain activities to be carried out sequentially rather than concurrently - should be applied with appropriate modifications.

3. THE LEGAL FRAMEWORK

- 3.1 This section of our memorandum examines the FTAA decision-making framework in detail. We have provided a comprehensive overview of the FTAA to set out the basis for our disagreement with paragraph 29, as well as other aspects of the Applicant's legal submissions dated 24 July 2025.

Overview of the Legal Framework

- 3.2 The key features of the legal framework under the FTAA are:

Purpose of the FTAA

- 3.3 The purpose of the FTAA "is to facilitate the delivery of infrastructure and development projects with significant regional or national benefits."⁵ This purpose is supported by section 10 of the FTAA, which requires every person performing functions and duties and exercising powers under this Act to take all practicable steps to use timely, efficient, consistent, and cost-effective processes that are proportionate to the functions, duties, or powers being performed or exercised.⁶

Two-stage process

- 3.4 The FTAA establishes a two-stage process: preliminary gateway decisions to determine whether a project qualifies for the fast-track approvals process, followed by an assessment of a substantive application and a decision to grant or decline the approvals sought.

Stage one - preliminary gateway decisions

- 3.5 A decision on a referral application is a preliminary gateway decision. The criteria for referral applications are set out in section 22 of the FTAA. Listed projects (being the projects listed in Schedule 2 of the FTAA) bypass the referral application stage, which suggests that the listing of a project serves

⁴ The FTAA decision on the Bledisloe North Warf and Fergusson North Berth Extension (FTAA-2503-1018] available at: [Port-of-Auckland-Fast-track-Application-Decision-of-Expert-Panel-21.8.25.pdf](#)

⁵ FTAA, s 3.

⁶ FTAA, s 10.

as a preliminary gateway decision regarding the project's eligibility for assessment under the fast-track approvals process.

- 3.6 The WNP is included in Schedule 2 of the FTAA as a listed project. The Ministry for the Environment's advice⁷ in relation to WNP's potential listing is clear that it reflects a "*Stage 1 Initial assessment of project eligibility and Treaty settlement assessment and advice*" and is subject to the following "disclaimer":

Given time and scope constraints, the initial assessment is solely based on information provided by applicants. There may be additional relevant information which has not been provided to MfE.

- 3.7 The expert panel appointed to assess and decide the substantive application is not explicitly bound by the Minister's initial finding in the listing or referral gateway decision, that a project has significant regional or national benefits. The gateway decision is based on a limited initial review of the material provided by the Applicant. The expert panel must independently assess the substantive application and make its own decision. Section 81(4) of the FTAA requires the panel to consider the extent of the project's regional or national benefits when taking the purpose of the FTAA into account under any of the clauses referred to in subsection 81(3). As addressed further below under the heading "**Power to Decline Consent**", the project's regional or national benefits are also relevant to any decision by a panel to decline an approval under section 85(3).
- 3.8 Some analogy can be drawn with the COVID-19 Recovery (Fast-track Consenting) Act 2020 (**FTCA**), where several expert consenting panels appointed under that legislation found that they were not bound by Ministerial determinations that projects would help to achieve the purpose of the FTCA, and were required to make their own independent assessments of applications against the statutory purpose (section 4, FTCA).⁸
- 3.9 The completeness decision required under section 46 of the FTAA is also a preliminary gateway decision. The preliminary gateway decisions are limited to confirming whether a project qualifies for assessment by an expert panel under the fast-track approvals process. At this first stage in the process, there is no decision to grant or decline a substantive application.

⁷ [211.04-FTA211-Waihi-North-Project-Sch-2A-MfE-assessment-form-Stage-1_Redacted.pdf](#)

⁸ E.g. the FTCA decisions on the following projects: [Tasman Aquaculture Trials](#), at [45], [Kohimarama Retirement Village](#), at [32], [Hananui Aquaculture Project](#), at [53].

Stage two - assessment and decision by the expert panel

- 3.10 For projects that pass the first stage, expert panels are appointed to carry out a detailed assessment of the substantive application and to make a decision to either grant or decline the approvals sought. The provisions in the main body of the FTAA concerned with “panel decisions” and “decision documents” are located in sections 79 to 89.
- 3.11 Section 81(1) of the FTAA requires the panel to decide whether, for each approval sought in the substantive application, to:
- (a) grant the approval and set any conditions to be imposed on the approval; or
 - (b) decline the approval.
- 3.12 For the purpose of making the decision, the panel:
- (a) Must consider the substantive application and any advice, report, comment, or other information received by the Panel under sections 51, 52, 53, 55, 58, 67, 68, 69, 70, 72, or 90;⁹
 - (b) Must apply such of the clauses set out in section 81(3) as are applicable to the relevant authorisations sought, which in the case of the WNP are:
 - (i) Sections 81(3)(a) and 42(4)(a) - resource consents (district and regional) that would otherwise be applied for under the Resource Management Act 1991 (**RMA**);
 - (ii) Sections 81(3)(m) and 42(4)(l) – access arrangement that would otherwise be applied for under section 61 of the Crown Minerals Act 1991, noting that in accordance with section 42(10) of the FTAA the application is within the area of Mining Permit 60541 (Coromandel Forest Park);
 - (iii) Sections 81(3)(m) and 42(4)(l) – variation to an existing access arrangement (62342) that would otherwise be applied for under section 61 of the Crown Minerals Act 1991 to encompass WNP components;

⁹ FTAA, s 81(2)(a).

- (iv) Sections 81(3)(f) and 42(4)(e) – concessions that would otherwise be applied for under the Conservation Act 1987;
 - (v) Sections 81(3)(i) and 42(4)(h) – wildlife approvals that would otherwise be applied for under the Wildlife Act 1953;
 - (vi) Sections 81(3)(j) and 42(4)(i) – archaeological authorities that would otherwise be applied for under the Heritage New Zealand Pouhere Taonga Act 2014;
 - (vii) Sections 81(3)(k) and 42(4)(j) – approvals / dispensations that would otherwise be applied for under regulations 42 or 43 of the Fisheries Regulations 1983.
- (c) Must comply with section 82 (relating to treaty settlements, the Marine and Coastal Area (Takutai Moana) Act 2011, or the Ngā Rohe Moana o Ngā Hapū o Ngāti Porou Act 2019) if applicable;¹⁰
- (d) In terms of conditions:
- (i) Must comply with section 83 in setting conditions;¹¹
 - (ii) May impose conditions under section 84 if applicable, to recognise or protect a relevant Treaty settlement and any obligations arising under the Marine and Coastal Area (Takutai Moana) Act 2011 or the Ngā Rohe Moana o Ngā Hapū o Ngāti Porou Act 2019.¹²

We address the FTAA provisions applicable to conditions further below under the heading “**Conditions of Consent**”.

- (e) May decline the approval only in accordance with section 85 of the FTAA. We address the Panel’s power to decline consent further below under the heading “**Power to Decline Consent**”.

Integration with other legislation

- 3.13 The FTAA integrates with other legislation by providing an alternative, streamlined process for obtaining approvals. Unlike the previous fast-track regimes, the FTAA is broader than just the approvals required under the

¹⁰ FTAA, s 81(2)(c).

¹¹ FTAA, s 81(2)(d).

¹² FTAA, s 81(2)(e).

RMA. Section 42 of the FTAA provides that the authorised person for a listed project or a referred project may lodge a substantive application seeking the approvals required by the specified Acts¹³ using the new fast-track approvals process as set out in Subpart 2 and Subpart 3 in Part 2 of the FTAA. Section 40 of the FTAA specifically states that the process under the FTAA “applies instead of the process for obtaining any corresponding approval under a specified Act.”¹⁴

Treaty obligations

- 3.14 In *Ngāti Kuku Hapū Trust v Environmental Protection Agency*, the High Court noted that:¹⁵

The principles of Te Tiriti o Waitangi are not referred to in the FTAA, with the Act instead providing that those exercising functions, powers, and duties under the Act must act consistently with obligations under existing Treaty settlements. [footnote to FTAA, s 7] Similarly, tikanga appears only to be referred to in relation to conducting a hearing on a fast-track application. [footnote to section 58]

- 3.15 Sections 11(1)(b) and 29 of the FTAA require that before lodging a referral application (s 11) or a substantive application (s 29), the applicant or authorised person must consult with any relevant iwi authorities, hapū and Treaty Settlement entities, including iwi authorities that represent hapū that are parties to relevant Mana Whakahono ā Rohe or joint management agreements, and any relevant groups with applications for customary marine title under the Marine and Coastal Area (Takutai Moana) Act 2011.

Inquisitorial powers

- 3.16 Expert panels have quasi-inquisitorial powers in relation to the matters before them. The expert panels “can hold hearings, appoint special advisers and technical advisers, request or commission reports, request advice, and invite comments.”¹⁶

¹³ The specified Acts are the Conservation Act 1987 (**CA**); the Crown Minerals Act 1991 (**CMA**); the Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012 (**EEZ Act**); the Heritage New Zealand Pouhere Taonga Act 2014 (**HNZPTA**); the National Parks Act 1980 (**NPA**); the Reserves Act 1977 (**RA**); the RMA; and the Wildlife Act 1953 (**WA**). FTAA, s 4 (Interpretation).

¹⁴ FTAA, s 40.

¹⁵ *Ngāti Kuku Hapū Trust v Environmental Protection Agency* [2025] NZHC 2046 at [46].

¹⁶ Dr K Palmer, *Laws of New Zealand Resource Management Part IX Fast-track Approvals – (32) Fast Track Approval Substantive Applications: Pre-lodgement Steps and Lodgement* (online ed) at [399] citing Schedule 3 of the FTAA, clauses 1 -13. And s 51 of the FTAA for the requesting of reports and other advice by the panel convener.

3.17 Under section 67 of the FTAA, at any time prior to making a decision on a substantive application under section 81, the Panel may direct the EPA to:

- (a) Request further information in relation to the application from any participant (section 67(1)(a));
- (b) Prepare or commission a report on an issue relevant to the application (section 67(1)(b)).

3.18 Clause 10 of Schedule 3 of the FTAA states:

10 Procedures of panel

- (1) A panel must regulate its own procedure as it thinks appropriate, without procedural formality, and in a manner that best promotes the just and timely determination of the approvals sought in a substantive application.
- (2) A panel may appoint a special adviser to assist the panel with a substantive application in relation to any matters the panel may determine.
- (3) A panel may, at any time, appoint technical advisers, including from a department, Crown entity, or relevant local authority, as it thinks appropriate.
- (4) A panel may use or allow any remote access facility that will assist in the determination of the approvals sought in a substantive application.
- (5) A panel must keep a full record of its proceedings.
- (6) This clause is subject to section 57 and any other provisions of this Act that are relevant to the procedure of a panel.

3.19 The legal opinion prepared by Mr Kitt Littlejohn for the Panel Convener on the Role and Powers of the FTAA Convener stated that:¹⁷

These powers function to enlarge the role of the panel from mere neutral arbiter of information presented to it, to inquisitor of information and advice about the application before it.

3.20 The power to exercise inquisitorial powers is subject to compliance with the procedural principles set out in section 10 of the FTAA. Mr Littlejohn considered it “apt to refer to the fast-track approach more as ‘modified-adversarial’ or ‘quasi-inquisitorial’”.¹⁸ This requirement to comply with the procedural principles does not mean that the Panel must agree with a request

¹⁷ Legal opinion on the role and powers of the Fast-track Approvals Act Convener prepared for the Panel Convener by Mr Kitt R M Littlejohn, dated 23 April 2025, at paragraph 43 available at: https://www.fasttrack.govt.nz/_data/assets/pdf_file/0014/3335/Roles-and-Powers-of-the-Fast-track-Approvals-Act-Panel-Convener-Kitt-Littlejohn_Redacted.pdf

¹⁸ Ibid at paragraph 28.

in the Applicant's legal submissions to "Use sparingly your ability to engage experts".¹⁹ The Panel must regulate its own procedure. In doing so, the Panel may exercise the inquisitorial powers available to it so long as the Panel takes all practical steps to use timely, efficient, consistent, and cost-effective processes that are proportionate to the functions, duties, or powers being performed or exercised.

Limited appeal rights

- 3.21 There are limited rights to appeal decisions made under the FTAA. Section 99 limits appeals to questions of law and it limits who can make an appeal to the following persons: the applicant (99(1)(a)); any relevant local authority (99(1)(b)); the Attorney-General (99(1)(c)); and any person or group that provided comments in response to an invitation given under the FTAA (99(1)(d)).
- 3.22 The decision in *Ngāti Kuku* confirms the right under section 27(2) of the New Zealand Bill of Rights Act 1990 to apply for a judicial review of a decision under the FTAA. While the FTAA recognises the right to apply for judicial review, it imposes procedural requirements: a 20 working day time limit for filing applications for judicial review of decisions on referral and substantive applications (section 101(1)); and, where an appeal is also being made under section 99, a requirement to lodge the judicial review application concurrently with the appeal (section 101(2)).

Assessment of Substantive Applications

- 3.23 For projects that pass the stage one preliminary gateway decisions, expert panels are appointed to carry out a detailed assessment of the substantive application and to decide to either grant or decline the approvals. The expert panel independently assesses the substantive application and makes its own decision on whether to grant or decline.

Resource Consents

- 3.24 When considering an application for resource consent under section 42(4)(a), the Panel is required by sections 81(2)(b) and 81(3)(a) to apply clauses 17 to 22 of Schedule 5 of the FTAA.

¹⁹ Submissions for Counsel for Oceana Gold (New Zealand) Limited dated 24 July 2025 at [50(c)].

Clause 17 – Criteria and other matters for assessment of consent application

- 3.25 Clause 17(1) of Schedule 5 requires the Panel, for the purposes of section 81, when considering the resource consent application and setting any conditions in accordance with clauses 18 and 19, to “**take into account**” the following, giving the greatest weight to (a):
- (a) the purpose of the FTAA; and
 - (b) the provisions of Parts 2, 3, 6 and 8 to 10 of the RMA that direct decision making on an application for a resource consent – this includes sections 104 and 104B of the RMA, but section 104D of the RMA (i.e. the ‘gateway test’ for non-complying activities) is specifically excluded; and
 - (c) the relevant provisions of any other legislation that directs decision-making under the RMA.
- 3.26 Accordingly, under clause 17(1), while the fast-track approvals process prescribed in the FTAA applies instead of the usual RMA consenting process, the FTAA expressly incorporates (or imports) most RMA provisions relevant to the assessment of resource consent applications, with all necessary modifications.²⁰

Meaning of “take into account”

- 3.27 In *Bleakley v Environmental Risk Management Authority* the High Court held that a statutory obligation in the Hazardous Substances and New Organisms Act 1996 to “take into account” a relevant matter indicated an obligation to:²¹

... consider the factor concerned in the course of making a decision - to weigh it up along with other factors - with the ability to give it, considerable, moderate, little, or no weight at all as in the end in all the circumstances seemed appropriate

- 3.28 In an RMA context, *New Zealand Transport Agency v Architectural Centre Inc*, the High Court discussed earlier cases and expressed the view that the

²⁰ FTAA, Clause 17(6) of Schedule 5

²¹ *Bleakley v Environmental Risk Management Authority* [2001] 3 NZLR 213 (HC) at [72].

phrases “shall have regard to” and “take into account” could be regarded as synonymous.²² The Court said:²³

In my view, the expression ‘to take into account’ is susceptible of different shades of meaning. I consider that the two phrases can be viewed as synonymous if the phrase ‘to take into account’ is used in the sense referred to by Lord Hewart CJ in *Metropolitan Water Board v Assessment Committee of the Metropolitan Borough of St Marylebone* of paying attention to a matter in the course of an intellectual process’. The key point is that the decision-maker is free to attribute such weight as it thinks fit to the specified matter but can ultimately choose to reject the matter.

- 3.29 This reasoning was accepted and adopted by the High Court in *Taranaki-Whanganui Conservation Board v Environmental Protection Authority*.²⁴
- 3.30 Based on the above case law, the statutory obligation to “take into account” requires the Panel to consider and weigh the specified matter alongside other relevant factors during the decision-making process, while retaining discretion to assign it considerable, moderate, little, or no weight as circumstances warrant.

Relevant purpose provisions – FTAA and RMA purposes

- 3.31 Two statutory purpose provisions apply to the fast-track approvals process resource consent decision-making under the FTAA:
- (a) As already noted, the purpose of the FTAA “is to facilitate the delivery of infrastructure and development projects with significant regional or national benefits.”²⁵
 - (b) The Panel will be familiar with the sustainable management purpose of the RMA, which also applies in light of clause 17(1)(b), albeit with the ‘greatest weight’ given to the FTAA’s purpose.
- 3.32 We observe that clause 17(2) clarifies how the RMA provisions in clause 17(1) should be applied, specifying that references to “Part 2” of the RMA mean only sections 5, 6, and 7 (i.e. not section 8).²⁶ Accordingly, the

²² *New Zealand Transport Agency v Architectural Centre Inc* [2015] NZHC 1991, [2015] NZRMA 375.

²³ At [63], citations omitted.

²⁴ *Taranaki-Whanganui Conservation Board v Environmental Protection Authority* [2018] NZHC 2217, at [159].

²⁵ FTAA, s 3.

²⁶ Clause 17(2) also ensures that effects on Māori land and interests are treated as matters of national importance under section 6(e) where the activity has been determined under section 23, and confirms that relevant Mana Whakahoā ā Rohe and joint management agreements must be considered as relevant matters under section 104(1)(c) of the RMA.

sustainable management purpose set out in section 5 of the RMA remains a relevant consideration that must be taken into account.

Interpretation of requirement to give “greatest weight” to purpose of FTAA

3.33 Clause 17(1) of Schedule 5 of the FTAA expressly requires that the greatest weight be given to the purpose of the FTAA.

3.34 Some guidance as to the application of a decision-making provision that expressly requires greater weight to be given to certain matters can be gleaned from case law concerning section 34(1) of the now-repealed Housing Accords and Special Housing Areas Act 2013 (**HASHAA**).

3.35 Section 34(1) of HASHAA framed the hierarchy of matters as follows:

An authorised agency, when considering an application for resource consent under this Act and any submissions received on that application, must have regard to the following matters, giving weight to them (greater or lesser) in the order listed:

- (a) the purpose of this Act:
- (b) the matters in Part 2 of the Resource Management Act 1991:
- (c) any relevant proposed plan:
- (d) the other matters that would arise for consideration under –
 - (i) sections 104 to 104F of the Resource Management Act 1991, were the application being assessed under that Act:
 - (ii) any other relevant enactment (such as the Waitakere Ranges Heritage Area Act 2008):
- (e) the key urban design qualities expressed in the Ministry for the Environment’s *New Zealand Urban Design Protocol* (2005) and any subsequent editions of that document.

3.36 In *Enterprise Miramar Peninsula Incorporated v Wellington City Council*,²⁷ the Court of Appeal examined the interaction between the consenting frameworks under the HASHAA and the RMA. The *Enterprise Miramar* case arose from Enterprise Miramar Peninsula Incorporated’s application for judicial review of Wellington City Council’s decision under the HASHAA to grant consent for a significant development in Shelly Bay, Wellington.

²⁷ *Enterprise Miramar Peninsula Incorporated v Wellington City Council* [2018] NZCA 541.

3.37 The Court of Appeal held that the plain wording of section 34(1) indicated “*that greatest weight is to be placed on the purpose of HASHAA...*”. The Court of Appeal also found that the inclusion of additional considerations in subsections (b)-(e) reflected a deliberate intention by Parliament for decision-makers “*not to rely solely on the purpose of the HASHAA at the expense of due consideration of the matters listed in (b)-(e).*”²⁸

3.38 The Court of Appeal said:²⁹

The scheme and plain text of s 34(1) requires individual assessment of the listed matters prior to the exercise of weighing them in accordance with the prescribed hierarchy. The matters listed in subs 1(b)-(e) cannot properly be weighed alongside the purpose of HASHAA under subs (1)(a) if that purpose has first been used to effectively neutralise the matters listed in subs (1)(b)-(e).

3.39 The principles established in *Enterprise Miramar* should inform the interpretation of clause 17(1) of Schedule 5 of the FTAA, mandating separate consideration of each factor before being weighed in accordance with the prescribed hierarchy. Moreover, weight to be afforded to the purpose of the FTAA should not be such as to neutralise or minimise the other relevant decision-making criteria which stem from the RMA. Specifically, the Court of Appeal commented:³⁰

The Council’s adoption of this conclusion and its reference to “housing stock”, and its cursory analysis of the matters arising under pt 2 of the RMA, are a further example of the Council having allowed the purpose of HASHAA to neutralise or minimise the other matters that arise for consideration under s 34(1)(b)–(e). As in relation to s 34(1)(d)(i) discussed above, the consequence is that the matters arising under s 34(1)(b) were not given due consideration and weight. Rather than just treating the purpose of HASHAA as the most important and influential matter to be weighed, the Council used the purpose of HASHAA to eliminate or greatly reduce its consideration and weighing of the other s 34(1) factors. For the reasons we have set out, this was a significant error of law resulting in a failure to take into account relevant considerations. We allow the appeal on that basis.

Extent of project’s regional or national benefits

3.40 Section 81(4) of the FTAA requires the Panel to consider the extent of the project’s regional or national benefits when taking the purpose of the FTAA into account under clause 17(1)(a) of Schedule 5. As addressed further below under the heading “**Power to Decline Consent**”, the project’s regional

²⁸ Ibid at [41].

²⁹ Ibid at [53].

³⁰ Ibid at [59].

or national benefits are also relevant to any decision by a panel to decline an approval under section 85(3).

3.41 The Applicant contends that “WNP is a development project that provides significant national and regional benefits and is strongly aligned with national strategy.”³¹ The Applicant’s economic assessment says that the WNP will extend mining in Waihi beyond 2040, and this will create the following regional and national economic benefits:³²

- (a) Exports: \$5.1 b of additional silver and gold exports over 18 years, equating to \$286 m of exports per annum.
- (b) Foreign direct investment: over NZ\$1b of additional foreign capital investment.
- (c) Economic activity: The average spend, or economic contribution will be \$110 m per annum, which will contribute 6% to the Hauraki District’s economy and 0.2% to the Waikato Region’s economy.
- (d) Employment effects: The WNP will support an average of 895 jobs over 18 years of the project. 389 well-paid jobs at the mine (directly and contractors). Over 240 jobs via suppliers. And nearly 200 jobs supported by the consumption of these workers.

3.42 The Applicant also contends that “ecological improvements would be generated within the Waikato Region as a result of terrestrial and riparian restoration and enhancement planting, ensuring that a net gain in ecological values is achieved”³³

3.43 As addressed further below and in the Planning Memo, the Council’s assessment is that, on balance, the Council agrees that the WNP generates significant economic benefits at the local and regional level. Council also agrees that benefits exist at the national level. However, the benefits at a national level are more muted due to the repatriation of profits.³⁴

3.44 It is essential that a Panel interrogate and test the alleged benefits of a project, consistent with its duties under sections 81(4) and 85(3) of the FTAA.

³¹ Submissions of Counsel for Oceana Gold (New Zealand) Limited dated 24 July 2025 at [25].

³² Economic effects of the Waihi North Project, Final Report to OceanaGold New Zealand Limited prepared by Eaugh & Eaugh Ltd dated 21 February 2024 at page 6.

³³ Part A – Waihi North Project – Substantive Application at page 11.

³⁴ Memoranda of Greg Akehurst of Market Economics dated 20 August 2025 (Economics).

- 3.45 In practice, the Panel's testing should be evidence-based. For some types of claimed benefits – for example, the suggestion that the project will have regional economic and ecological benefits – the Panel can and should rely on objective economic and ecological expert assessment and evidence to test whether contended benefits will be delivered, in what form, and to what extent – and ultimately whether they are indeed 'regional' in nature.

Clause 17(1)(b) – RMA provisions

- 3.46 As noted, clause 17(1)(b) of Schedule 5 requires the Panel to take into account the provisions of Parts 2, 3, 6, and 8 to 10 of the RMA that direct decision making on an application for a resource consent (but excluding section 104D of the RMA).
- 3.47 We draw the Panel's attention to clause 17(3) and (4) of Schedule 5 to the FTTA, which applies to any RMA provisions which would **require** the refusal of consent. In relation to such provisions, the Panel must take into account that the provision would normally require an application to be declined but must not treat the provision as requiring the Panel to decline the application the Panel is considering. Section 107(1) of the RMA would appear to be an example of such a provision. By contrast, section 106(1) of the RMA would not (as it uses the language "may refuse" rather than "must refuse").
- 3.48 The provisions in Parts 2, 6 and 10 of the RMA relevant to this Application encompass:

Part 2, RMA provisions

- (a) The provisions of Part 2 of the RMA. As noted above, applying clause 17(2)(a), sections 5, 6 and 7 (but not section 8) are applicable.

Part 6, RMA provisions

- (b) A number of provisions in Part 6 of the RMA relating to resource consents apply, as outlined briefly below.
- (i) First, the usual decision-making considerations under **section 104(1)(a) to (c)** of the RMA, namely:
- (A) **104(1)(a):** Any actual and potential effects on the environment of allowing the activity. The Council's assessment has identified adverse impacts that will

need to be addressed through sound consent conditions.

(B) 104(1)(ab): Any measure proposed or agreed to by the Applicant for the purpose of ensuring positive effects on the environment to offset or compensate for any adverse effects on the environment that will or may result from allowing the activity.

(C) 104(1)(b): Any relevant provisions of—

(1) a national environmental standard:

(2) other regulations:

(3) a national policy statement:

(4) a New Zealand coastal policy statement:

(5) a regional policy statement or proposed regional policy statement:

(6) a plan or proposed plan; and

(D) 104(1)(c): Any other matter the consent authority considers relevant and reasonably necessary to determine the application.

(ii) Section 104B, which relates to decision-making for discretionary and non-complying activity consent applications.

(iii) Sections 108, 108AA, 108A and 109 relating to conditions and bonds / covenants. We address conditions below under the heading “**Conditions of Consent**”.

Conditions of Consent

3.49 As noted, clause 17(1) requires the Panel, when considering setting any conditions in accordance with clause 18, to take into account the provisions listed at subclause (1)(a) to (c), giving the greatest weight to (a).

3.50 Clause 17(1) of Schedule 5 of the FTAA imports Part 6 (Resource Consents) and Part 10 (Subdivision and reclamations) of the RMA. This includes sections 108, 108AA, 108A, 109 and 220 of the RMA.

3.51 In *Waitakere City Council v Estate Homes Ltd*,³⁵ the Supreme Court held that the power to impose conditions on resource consents under section 108(2) of the RMA was a broadly expressed power, which included, in that case, the requirement to build an arterial road.

3.52 Section 108AA(1) of the RMA codifies, in part, the common law requirements for conditions to be valid.³⁶ Section 108AA(1) states:

108AA Requirements for conditions of resource consents

- (1) A consent authority must not include a condition in a resource consent for an activity unless—
 - (a) the applicant for the resource consent agrees to the condition; or
 - (b) the condition is directly connected to 1 or more of the following:
 - (i) an adverse effect of the activity on the environment;
 - (ii) an applicable district or regional rule, or a national environmental standard;
 - (iii) a wastewater environmental performance standard made under section 138 of the Water Services Act 2021;
 - (iv) a stormwater environmental performance standard made under section 139A of the Water Services Act 2021; or
 - (c) the condition relates to administrative matters that are essential for the efficient implementation of the relevant resource consent.

3.53 In addition, conditions must also meet the established common law principles from the *Newbury* test. The *Newbury* requirements, which will be familiar to the Panel, are:³⁷

- (a) Conditions must be for a planning purpose and not for any ulterior one.
- (b) They must fairly and reasonably relate to the development permitted, though this relationship test has been strengthened under section

³⁵ *Waitakere City Council v Estate Homes Ltd* [2006] NZSC 112.

³⁶ *Ibid* at [54].

³⁷ *Newbury District Council v Secretary of State for the Environment* [1980] 1 All ER 731, as applied in New Zealand by *Waitakere City Council v Estate Homes Ltd* [2007] 2 NZLR 149, at para [66].

108AA(1)(b) of the RMA, which requires conditions to be “directly connected” rather than merely “fairly and reasonably” related.

- (c) They must not be so unreasonable that no reasonable planning authority could have imposed them.

- 3.54 For completeness, section 83 of the FTAA states an overarching obligation on the Panel when setting conditions, namely that:

When exercising a discretion to set a condition under this Act, the panel must not set a condition that is more onerous than necessary to address the reason for which it is set in accordance with the provision of this Act that confers the discretion.

- 3.55 In reality, we do not consider that the direction in section 83 that conditions should be no more onerous than necessary alters the existing position – the same proportionate approach is expected under standard RMA decision-making.

Power to Decline Consent

- 3.56 Section 85 prescribes circumstances where the Panel “must” (section 85(1)) and “may” (section 85(3)) decline approval.
- 3.57 The Council’s assessment has not identified any reasons why the Application **must** be declined in terms of section 85(1) of the FTAA.
- 3.58 Under section 85(3) of the FTAA, the Panel **may** decline an approval where adverse impacts are sufficiently significant to be out of proportion to the project's regional or national benefits.
- 3.59 Specifically, subsection (3) provides that the Panel may decline an approval if, in complying with section 81(2), the Panel forms the view that:

- (a) There are 1 or more adverse impacts in relation to the approval sought; and
- (b) Those adverse impacts are sufficiently significant to be out of proportion to the project's regional or national benefits that the panel has considered under section 81(4), even after taking into account –
 - (i) any conditions that the panel may set in relation to those adverse impacts; and
 - (ii) any conditions or modifications that the applicant may agree to or propose to avoid, remedy, mitigate, offset, or compensate for those adverse impacts.

- 3.60 Broadly, this 'proportionality test' requires the Panel to consider:
- (a) The nature and significance of adverse impacts identified through the section 81(2) process;
 - (b) The project's regional benefits as assessed under section 81(4);
 - (c) Whether proposed conditions or applicant modifications could adequately address adverse impacts;
 - (d) Whether the proportionality threshold is met even after accounting for mitigation measures, compensation etc.
- 3.61 Should the Panel assess the adverse impacts as being sufficiently significant to be out of proportion to the project's regional benefits, having considered the above matters, the Panel may in its discretion decline the Waihi North Application.
- 3.62 The term "adverse impact" is defined in section 85(5) as meaning "*any matter considered by the panel in complying with section 81(2) that weighs against granting the approval*". The term is therefore broad and could encompass (for example) adverse effects on the environment, matters arising from planning instruments, and section 104(1)(c) matters.
- 3.63 Section 85(4) requires brief comment. The subsection states that a panel "*may not form the view that an adverse impact meets the threshold in subsection (3)(b) **solely on the basis** that the adverse impact is inconsistent with or contrary to a provision of a specified Act or any other document*" (emphasis added).
- 3.64 The provision does not prohibit consideration of inconsistency or contrariness with planning documents – it only prevents reliance on inconsistency alone as sufficient grounds to decline a proposal. This suggests Parliament intended that inconsistency remains a relevant consideration. It simply cannot be the **only** factor supporting a decline decision.
- 3.65 Where inconsistency with planning provisions is, for instance, coupled with actual adverse impacts (environmental, social, or economic), both factors may legitimately contribute to a decision to decline.

- 3.66 The Council's assessment (summarised in **Section 4** below and in the Planning Memo) has not identified any sufficiently significant adverse impacts that cannot be appropriately managed through robust consent conditions or that would justify declining the application.

Power to decline in part

- 3.67 It is well established that, when determining applications for resource consent, the decision-maker has *"the power to grant consent to something less than what is actually being sought"*.³⁸
- 3.68 In the decision of the expert consenting panel concerning an application for a comprehensive care retirement village at Kohimarama, Auckland under the FTCA, the Panel considered the following comments from RMA case law:³⁹

The Resource Management Act provides procedures for applications for resource consent that are designed to enable all persons who wish to take part to do so. ... In practice, the lodging of submissions and the presentation of opponents' cases frequently leads to applicants or consent authorities modifying proposals to meet objections that are found to be sound. That must surely be part of the statutory intent in providing for making submissions.

- 3.69 The Panel then said that it saw:

... no reason why this approach should not be equally applicable to resource consenting under the FTA provided that the purpose of the FTA is not neglected in the process. For example, there may be instances where s 108 conditions of consent would be unavailable or inappropriate to restrict certain effects that can be remedied by a partial consent which still enables an effective project.

- 3.70 Therefore, under section 81(1) of the FTAA, the Panel has three options:
- (a) grant the full approval (with conditions);
 - (b) decline it entirely; or
 - (c) approve only part of what is sought (with conditions) and decline the remaining parts.
- 3.71 However, any decision to decline an approval (whether in whole or in part) must be made in accordance with section 85 of the FTAA. Therefore, the

³⁸ See *Director-General of Conservation v the New Zealand Transport Agency* [2020] NZEnvC 19 at [20].

³⁹ Amended decision of the Kohimarama Comprehensive Care retirement village expert consenting panel released on 8 June 2021 at [53], citing *Collins v Northland RC* [2013] NZHC 3039 at [26] – [27] and *Haslam v Selwyn District* (1993) 2 NZRMA 628 (PT) at 634.

Panel must work through the considerations relating to section 85 identified above.

4. LEGAL CONSIDERATIONS IN RELATION TO ISSUES RAISED BY THE COUNCIL'S TECHNICAL EXPERTS

4.1 We address, from a legal perspective, the following discrete legal topics/considerations that are relevant to the Panel's deliberations:

- (a) Cumulative effects;
- (b) Overlapping existing consents/authorisations; and
- (c) Management plans.

Cumulative effects

4.2 Mr Styles has noted that there will be some activities that are not part of the WNP that have the potential to generate cumulative noise effects.⁴⁰ Mr Styles has therefore recommended that clarification be sought from the Applicant as to whether its other existing consented activities could cause cumulative noise effects.

4.3 In *Dye v Auckland Regional Council*, the Court of Appeal said:⁴¹

The concept of cumulative effect arising over time is one of a gradual build up of consequences. The concept of combination with other effects is one of effect A combining with effects B and C to create an overall composite effect D.

4.4 In the Bledisloe North Wharf and Fergusson North Berth Extension fast-track project⁴², the cumulative noise effects of simultaneous piling at both wharves were identified as an issue. To address this, the expert panel imposed the following condition in each resource consent:

[Bledisloe Wharf]

- 27. Pile driving pursuant to these consents must not occur concurrently with pile driving undertaken pursuant to the consents authorising the expansion of Fergusson Wharf to ensure compliance with Condition 25.

⁴⁰ Memoranda of Jon Styles of Styles Group dated 22 August 2025 (Acoustics).

⁴¹ *Dye v Auckland Regional Council* [2001] NZRMA 513 at [38].

⁴² The FTAA decision on the Bledisloe North Wharf and Fergusson North Berth Extension (FTAA-2503-1018] available at: [Port-of-Auckland-Fast-track-Application-Decision-of-Expert-Panel-21.8.25.pdf](#)

[Fergusson North Berth]

27. Pile driving pursuant to these consents must not occur concurrently with pile driving undertaken pursuant to the consents authorising the new wharf at Bledisloe Terminal to ensure compliance with Condition 25.

- 4.5 Accordingly, clarification from the Applicant is required to identify if the noise effects of the WNP in combination with the noise effects of the Applicant's other consent activities will result in cumulative noise effects. If cumulative noise effects are anticipated, the approach established by the expert panel for the Bledisloe North Wharf and Fergusson North Berth Extension fast-track project should be applied with appropriate modifications.

Overlapping existing consents/authorisations

- 4.6 There are some overlapping existing consents/authorisations. Accordingly, Council has recommended a condition precedent to require the consent holder to confirm which of these existing consents/authorisations (and related conditions) are to be superseded by the consent for the WNP.
- 4.7 A condition precedent is one "that must be satisfied before a consent-holder can undertake activities authorised by a consent or a designation".⁴³ In *Westfield (New Zealand) Ltd v Hamilton City Council*, the High Court confirmed that a condition precedent which defers the opportunity for an applicant to embark upon the activity until a third party carries out some independent activity is not invalid.⁴⁴
- 4.8 A condition precedent is lawful subject to the requirement that it does not:⁴⁵
- (a) purport to impose conditions prior to the substantive consent having legal effect;⁴⁶
 - (b) require the consent holder to do something that it cannot lawfully do;⁴⁷
 - (c) frustrate the grant of consent;⁴⁸

⁴³ *Tram Lease Limited v Auckland Transport* [2015] NZEnvC 137 at [28].

⁴⁴ *Westfield (New Zealand) Ltd v Hamilton City Council* (2004) 10 ELRNZ 254, at [56].

⁴⁵ *Ibid.*

⁴⁶ *Ibid.*, citing *Director-General of Conservation v Marlborough District Council* HC Wellington CIV-2003-485-2228, 3 May 2004, HC, 2004 at [15].

⁴⁷ *Ibid.*, citing *Westfield (NZ) v Hamilton City Council* HC Hamilton, CIV-2003-485-000956, 17 March 2004.

⁴⁸ *Ibid.*, citing *Hildeman v Waitaki District Council* [2010] NZEnvC 51.

- (d) give rise to undue uncertainty as to the effects of the consented works and whether the mitigation measures proposed can be implemented, and if they are, whether they would be effective.⁴⁹

4.9 In *Hildeman v Waitaki District Council*,⁵⁰ the Environment Court considered a land use consent application for a campground and found that increased traffic from the proposed campground would necessitate an intersection upgrade. The Court noted that, while there were existing issues at the intersection, the current low traffic volume did not warrant an upgrade. The Court therefore concluded that, notwithstanding the pre-existing nature of the problem, at least part of the responsibility must lie with the applicant. Although the Court accepted that there are situations where it is appropriate to impose a condition precedent on a resource consent, it ultimately declined the consent, as the Council had refused to commit to the intersection upgrade and the applicant was unable to fund the upgrade on an economically viable basis. The Court said that “*Such a condition would potentially render the grant of consent futile and ought not be imposed.*”⁵¹

4.10 While conditions precedent are clearly a legally available mechanism, they are not always appropriate in practice. In *Laidlaw College Inc v Auckland City Council*, the Environment Court noted that the factual situation must support the imposition of such a condition, particularly where third party agreement or assessment is required.⁵² The Court emphasised that there must be sufficient certainty that proposed mitigation measures would be effective before a condition precedent can appropriately be imposed. Similarly, as demonstrated in *Hildeman*, a condition precedent should not be imposed where it would potentially render the grant of consent futile due to practical impediments such as lack of funding or third-party commitment to necessary works.

4.11 The Council considers that the condition precedent to address the overlapping existing consents/authorisations is appropriate.

⁴⁹ Ibid, citing *Laidlaw College Inc v Auckland City Council* [2011] NZEnvC 248.

⁵⁰ *Hildeman v Waitaki District Council* [2010] NZEnvC 51 (*Hildeman* Interim Decision) and *Hildeman v Waitaki District Council* [2010] NZEnvC 194 (*Hildman* Final Decision).

⁵¹ *Hildman* Interim Decision at [83].

⁵² *Laidlaw College Inc v Auckland City Council* [2011] NZEnvC 248 at [52].

Management Plans

- 4.12 The Council's technical experts have raised concerns about the fragmented structure of some of the management plans. Accordingly, they have recommended that the Applicant revise and resubmit certain draft management plans.
- 4.13 It is established law that a condition must not delegate the making of any consenting or other arbitrary decision to any person. However, it is permissible for a condition to authorise a person to certify that a condition of consent has been met or complied with, or to settle a detail of that condition.⁵³
- 4.14 Therefore, as an alternative, the consent conditions could be amended to incorporate adequate detail regarding the requirements for the management plans. This would allow the plans to be resubmitted post-decision for certification by the Council(s).

5. OUTCOME OF THE COUNCILS' ASSESSMENT OF THE APPLICATION TO DATE

- 5.1 The Council has undertaken a comprehensive review and assessment of the project, which is set out in the Planning Memo and associated specialist memoranda. As noted in the Planning Memo, the Council's assessment has not identified any adverse impacts that cannot be addressed through sound conditions. There are, however, some outstanding issues with the Applicant's proposed draft consent conditions and the documents that support them (proposed management plans) that need to be addressed. If the Council's concerns and recommendations regarding these matters are satisfactorily addressed, it will be satisfied that consent can be granted.
- 5.2 The following briefly summarises key concerns and recommendations from the Council's assessment; the Panel should refer to the full memoranda for complete details.

Blasting and Vibration

- 5.3 The specialist blasting and vibration memorandum prepared by Cameron McKenzie of Blastotechnology identifies blasting and vibration impacts that

⁵³ *Turner v Allison* [1971] NZLR 833.

require attention and provides recommendations for amending the draft conditions to address them, including, for example:⁵⁴

- (a) **Blasting times:** It is not appropriate to have different blasting times for different surface blasting operations with differently affected sensitive receivers, all within the Waihi community. In the interests of standardisation, the blasting times for GOP and the Borrow Pits should align with those of the Martha Pit. Accordingly, the Council has recommended amendments to condition 28.
- (b) **Overpressure Monitoring:** The proposal to monitor only a few times a year is not an appropriate compliance monitoring approach for overpressure. Suggested amendments have been made to condition 29(d) to include a requirement for the peak overpressure level to be monitored for all GOP blasting within Area 5 and borrow pit blasting at the western borrow pit in Area 6, and the central and eastern borrow pits in Area 7.
- (c) **Monitoring and Reporting of Flyrock:** The potential for a serious and possibly fatal accident is always present. It is therefore recommended that condition 33(e) be amended to require the monitoring of every blast using video cameras and the rating of collar and free-face venting intensity in the Blast Report for every blast fired in the GOP and the borrow pits.
- (d) **Monitoring and Reporting of Fume:** The Waihi community, if exposed to thick orange fume emanating from the GOP or borrow pits, will almost certainly be alarmed and concerned about health and respiratory impacts. Accordingly, an amendment to condition 45(g) has been recommended to require assessment by video analysis and the reporting of fume rating for every blast fired in the GOP and the borrow pits.

Acoustics

- 5.4 The specialist acoustics memorandum prepared by Jon Styles of the Styles Group identifies acoustic impacts that require attention and provides

⁵⁴ Memoranda of Cameron McKenzie of Blasttechnology dated 22 August 2025 (Blasting and Vibration).

recommendations for amending the draft conditions to address them, including, for example:⁵⁵

- (a) **Construction noise limits:** Mr Styles identifies that the construction phase will be very long in many areas of the WNP. This long duration needs to be kept in mind when considering effects. To address this, Mr Styles recommends changes to conditions 8, 13, and 14 to require more rigour for the determination of the Best Practicable Option and for the certification process for the authorisation of infringements to the noise limits in condition 7. Mr Styles considers that his recommended changes will create a level of certainty that the noise effects arising from the infringements will be reasonable.
- (b) **Operational noise limits:** Mr Styles considers that careful design and management will be required to ensure that noise levels are compliant with the operational noise limits. Accordingly, he has recommended some minor amendments to the conditions for the Operational Noise Management Plan. He has also noted that there will be some activities that are not part of the WNP that have the potential to generate cumulative noise effects. Mr Styles has therefore recommended that clarification be sought from the Applicant as to whether its other existing consented activities could cause cumulative noise effects. If so, an assessment of those effects will be required.
- (c) **Helicopter noise:** Mr Styles considers that the approach and departure tracks should be clearly labelled and that the conditions should require the specified approach and departure tracks to be followed. Mr Styles is also concerned that the prediction and assessment of helicopter noise in the Applicant's assessment of noise effects and the proposed conditions lack integration and specificity. Mr Styles recommends amendments to the draft conditions so that they are consistent with the assessment of noise effects. Mr Styles has also recommended new conditions to manage the use of helicopters for the construction and operational phases as they relate to activities occurring in Area 1.

⁵⁵ Memoranda of Jon Styles of Styles Group dated 22 August 2025 (Acoustics).

Landscape, Natural Character and Visual

- 5.5 The specialist landscape, natural character and visual memorandum prepared by David Mansergh of Mansergh Graham Landscape Architects Limited identifies that while the mitigation recommendations and requirements outlined in the Applicant's Landscape, Natural Character and Visual Effects Assessment⁵⁶ are generally sound and are consistent with best practice, the supporting mitigation framework lacks clarity and integration. The uncertainty that is created by the fragmented structure of the management plans and the draft conditions is a concern, and it will make it difficult for the Council to administer the consent effectively. Amendments are required to the proposed management plans and draft conditions of consent to address this concern. The outcome required is an implementation strategy that is straightforward to implement, monitor, and evaluate, with success being clearly measurable. As a result, the proposed draft management plans will need to be revised and resubmitted by the Applicant. As noted above, an alternative approach could be to amend the consent conditions to incorporate adequate detail regarding the requirements for the management plans. This would allow the plans to be resubmitted post-decision for certification by the Council(s). We draw the Panel's attention to Mr Mansergh's specialist memorandum for a full explanation of the recommended changes that are required to resolve the concern about the supporting mitigation framework.

Ecology

- 5.6 The specialist ecological memorandum prepared by Matt Baber of Alliance Ecology Ltd and Gerry Kessels of Bluewater Ecology identifies that what is proposed by the Applicant in the draft consent conditions is not sufficient to provide certainty that the stated outcomes will be demonstrably achieved. There are also discrepancies between management plans and conditions across various ecological matters. To address this, the specialist ecological memorandum and the Planning Memo outline several recommended amendments to the conditions, as well as observations on other draft conditions where more complex changes are required. As with Council's

⁵⁶ Waihi North Project. Landscape, Natural Character and Visual Effects Assessment Prepared for OceanaGold New Zealand Limited. 10 February 2025. Revision 5. Boffa Miskell Ltd.

feedback on landscape, natural character and visual amenity, the Applicant will need to revise and resubmit the relevant management plans.

6. CONCLUSIONS AND RECOMMENDATIONS ARISING FROM THAT ASSESSMENT

- 6.1 As already stated, the Council's assessment has not identified any adverse impacts that cannot be addressed through sound conditions. There are, however, some outstanding issues with the Applicant's proposed draft consent conditions, together with the management plans that relate to some of these. If the Council's concerns and recommendations regarding these matters are satisfactorily addressed, it will be satisfied that consent can be granted.
- 6.2 The 'tracked-changed' version of the proposed consent conditions provided by Council sets out the changes required to the proposed consent conditions to incorporate the Council's feedback. The specialist memoranda also outline several observations on other draft conditions where more complex changes are required.
- 6.3 The Council's experts are available to participate in expert conferencing on the conditions, and/or the Council is open to taking part in conditions workshops or a hearing.

DATED the 25th day of August 2025



Andrew Green

Counsel for the Hauraki District Council

The Memo

To: Leigh Robcke
Hauraki District Council

From: Craig McGarr

Date: 22 August 2025

Project No: 19016

Re: Waihi North Project: Planning Memorandum

Statement of Position

Bentley & Co have been engaged by Hauraki District Council (HDC) to review the Waihi North substantive application (the application) lodged by OceanaGold (New Zealand) Limited (the applicant) under the Fast-track Approvals Act 2024 (FTAA), and in doing so:

- Assist with identifying whether there are any concerns with the approach taken in the application which may result in material adverse impacts that weigh against granting approval to the application, and to the extent that there are any – assess whether they are sufficiently significant to be out of proportion to the project’s regional or national benefits, taking into account any conditions or modifications that the applicant has proposed to avoid, remedy, mitigate, offset, or compensate for those adverse impacts.
- Relative to the above:
 - identify those conditions that are proposed by the applicant which HDC consider require amendments (or further conditions which are required) to avoid, remedy, mitigate, offset, or compensate for those adverse impacts, and recommend changes, where considered necessary. This has been assisted by the review undertaken of the application by a range of technical specialists engaged by HDC, who have variously identified amendments to the proposed conditions that are considered necessary to correspond to the effects/impacts assessed.
 - Identify those conditions that are proposed by the applicant which HDC consider require amendment to facilitate effective and efficient administration, and recommend changes.
 - Identify those conditions and matters which require further consideration/amendment by the applicant and the Panel, and in which HDC seeks to participate. This includes several management plans that the application seeks be approved as part of the consent sought, rather than being the subject of further Council certification, and the suitability of what has been proposed to

achieve the outcomes intended (provide for the management of the effects), including recommendations to address shortcomings where they have been identified. This includes corresponding recommendations in respect of conditions that are considered to require further amendment/alignment.

- For completeness, feedback has also been given on the proposed conditions to identify errors, omissions, and recommend changes to improve clarity.
- Provide a summary of the feedback provided by HDC's specialists and assessment outcomes, and determine whether a proportionality assessment is necessary relative to that, taking into account any conditions or modifications that the applicant may agree to or propose to avoid, remedy, mitigate, offset, or compensate for those adverse impacts. This includes those conditions that are recommended to be amended by HDC.

In undertaking this review the following has also been considered:

- The application material as it relates to HDC, inclusive of the applicant's proposed conditions of consent.
- How the consent sought (and proposed consent conditions) may integrate with existing consents/authorisations for mining activities in the respective Areas of the Mine site, where the application and existing authorisations overlap, and how these (and their respective conditions) are to be managed (and monitored by Council(s)).

A set of 'marked up' versions of the applicant's proposed conditions have been prepared for both the Hauraki District Land Use Consents and the proposed conditions common to the Hauraki District Council and Waikato Regional Council Resource Consents (where applicable to HDC), reflecting the feedback of HDC.

The specialists engaged by the HDC (including myself) (the HDC team) have been involved iteratively (with various levels of engagement/feedback) with the applicant since as early as 2020 in respect of the nature, scope and framing of the proposal for which approval has been sought. This has included feedback on the development of various drafts of the application material and reporting/assessment that has been iteratively provided, together with feedback and section 92 responses to the application for resource consent that was first lodged with HDC on 22 June 2022.

Communications have progressed with the applicant in the intervening period, which have included (up to and following the lodgement with the EPA) feedback in respect of the sufficiency of the assessments undertaken to support the application (including identification as to where further assessment is necessary to support the conclusions reached), and to inform suitable conditions (and suitable condition phrasing). This feedback has also included:

- Iterative comments on versions of the proposed draft conditions.
- Queries as to how the project will integrate with the suite of existing resource consents/authorisations held by the applicant for mining and mining related activities in the District that overlap with the project.
- Comments in respect of the extent of parties (iwi) included in the proposed conditions of consent as participants in future processes.
- Queries in respect of the appropriateness and suitability of the proposal to ‘roll over’ conditions from previous consents/authorisations, including those which require actions of third parties and the powers attributable to such parties (the Martha Trust), or the approval of matters for which there is no supporting assessment (the rehabilitation bond risk insurance sums and the scope of the capitalisation bond risk assessment (and the costs to HDC associated with this process where disagreement arises)).

The engagement process undertaken has enabled the HDC team to be well informed of the nature of the proposal such that the feedback provided is refined and focussed on outstanding matters requiring attention to enable consent to be granted. In this regard, the HDC team have assessed the proposal and consider that there are no adverse impacts that are sufficiently significant that cannot be avoided, remedied, mitigated, offset, or compensated for by suitable conditions of consent being imposed. Those conditions that are recommended by the HDC team are no more onerous than necessary to address the effect/issue that they are concerned with, in accordance with the provisions/purpose of the FTAA.

Further to this (with reference to the specialist economic advice received by HDC), the proposal is considered to generate significant economic benefits at the local and regional level, while noting

that benefits also exist at the national level, their effect is more muted due to the repatriation of profits.

This memorandum should be read alongside the Legal Memorandum prepared by Brookfields Lawyers dated 25 August 2025, which addresses the legal framework for decision-making under the FTAA, including the statutory tests and considerations that apply to the Panel's assessment.

My qualifications and experience are set out in **Appendix 1**.

Summary of Specialist Assessments

Contamination

HDC's assessment of ground contamination matters (by hdGEO) has been limited to a review of the proposed conditions for the HDC land use consents and the proposed conditions common to HDC and Waikato Regional Council (WRC); and to provide comments on their suitability, relative to the Preliminary Site Investigation submitted with the application.

HDC's assessment is that the conditions proposed by the applicant relative to the preliminary site investigation that has been undertaken, are appropriate, relative to the requirement for the consent holder to instigate a Site Management Plan - Contaminated Land for certification, which provides for further area specific investigation and procedures to be implemented in preparation for the earthworks to be completed, feeding into area-specific plans that will be implemented to manage the earthworks and mitigate risk to human health and the environment.

Correspondingly, there are no additional consent conditions or changes to conditions that are considered necessary.

There are no significant residual contamination impacts that require a proportionality assessment

Heritage

HDC's assessment of heritage matters (by Dr Neville Richie) has included a review of the applicant's heritage technical reports and significance evaluations (including the proposed archaeological authority application) prepared by Clough & Associates, together with the proposed conditions on this subject, and the Archaeological Management Plan Waihi North Project.

HDC's assessment agrees with the assessment undertaken by the applicant, and that the proposed conditions of consent are suitable and sufficient to control/manage the heritage effects of the proposed activity, and the Archaeological Management Plan Waihi North Project addresses all the issues that are expected in a management plan for the historic heritage sites affected by a major project and specifically addresses the effects and potential mitigation measures to reduce the impacts of the WNP on historic mining sites.

Correspondingly, there are no additional consent conditions or changes to conditions that are considered necessary.

There are no significant residual archaeological/heritage impacts that require a proportionality assessment.

Transportation

HDC's assessment of transportation matters (by Pinnacles Civil) has included a review of the applicant's Transport Assessment Report prepared by Stantec, and the proposed HDC conditions.

HDC's assessment agrees with the assessment undertaken by the applicant, concluding that the proposed conditions for the Hauraki District Council Land Use Consents (Conditions 70–86) are satisfactory in their present form, and any potential transportation impacts arising from the proposal —both during construction and in the long term—will be effectively avoided, remedied or mitigated to the point they are acceptable.

Correspondingly, there are no additional consent conditions or changes to conditions that are considered necessary.

There are no significant residual transportation impacts that require a proportionality assessment.

Hazardous Facilities

HDC's assessment of hazardous facilities matters (by Resources Consulting) has included a review of the applicant's hazardous substances technical reports (prepared by Tonkin + Taylor) and proposed conditions for the HDC land use consents and the proposed conditions common to HDC and Waikato Regional Council (WRC) resource consents.

HDC's assessment is critical of the risk assessments contained in the applicant's reports, as being relatively basic and qualitative, as well as containing a number of errors and inconsistencies, with the analysis undertaken by the applicant being considered more descriptive than comprising risk assessments.

Having said that, HDC consider that the outcome, in respect of the suitable management of the effects of hazardous substances is appropriate with regard to the applicant's proposed conditions, subject to the amendments recommended. The inconsistencies identified in the HDC's assessment of hazardous facilities matters (by Resources Consulting) relate to the quantities (or volumes, as the case may be) of hazardous substances identified in the technical reports and the proposed conditions, and is not germane to the conclusions arrived at in respect of the management of the impacts of the use/storage of hazardous substances by the recommended amendments to the proposed conditions being sufficient.

These recommended amendments to the proposed conditions of consent are contained in:

- A 'track-changed' version of the Proposed Conditions for the Hauraki District Council Land Use Consents.
- A 'track-changed' version of the Proposed Conditions Common to the Hauraki District Council and Waikato Regional Council.

There are no significant residual hazardous substances/facilities impacts that require a proportionality assessment.

Social

HDC's assessment of social matters (by Quigley and Watts Ltd) has included a review of the applicant's social impact assessment (prepared by WSP) and the proposed conditions for the HDC land use consents.

HDC's assessment identifies that the positive effects identified in respect of businesses, education, training and employment have a low likelihood of occurring to the degree expressed in the applicant's social impact assessment, and those positive effects are not supported (achieved) by the approach taken to the proposed conditions.

HDC's assessment of the project's increased demand for housing (high negative, reducing to medium negative after mitigation) is that the conclusions drawn by the applicant are underestimated, which is not mitigated by the conditions proposed.

To address these impacts, and achieve the forecast outcomes of the applicant's social impact assessment, it is recommended that the proposed consent conditions be amended to be more effective, with the aim of increasing the likelihood of achieving the proposed uplift in positive effects that has been identified as an outcome by the applicant; and a decrease in potential negative impacts (regarding potential housing effects). This is recommended to be achieved by improving the language of the conditions overall and to amend them to achieve the outcomes projected by the applicant's social impact assessment. Related to this, it is recommended that the proposed conditions which relate to the contents of the Social Impact Management Plan (that is to be submitted for certification as a condition of consent to HDC) be amended for consistency.

These recommended amendments to the proposed conditions are contained in:

- A 'track-changed' version of the Proposed Conditions for the Hauraki District Council Land Use Consents.

There are no significant residual social impacts that require a proportionality assessment.

Geotechnical (Surface settlement and stability)

HDC's assessment of geotechnical matters (by Dalmour PTY Ltd) has included a review of the applicant's geotechnical (GOP and WUG) ground settlement assessment, and the Willows Boxcut design assessment (prepared by PSM, WSP, and EGL), together with the proposed conditions for the HDC land use consents and the proposed conditions common to HDC and Waikato Regional Council.

In respect of each of these items, HDC's assessment is:

GOP: there are no issues of concern, and the consent conditions that have been proposed (together with those additional conditions recommended) will provide the necessary requirements for the pit to be excavated and subsequently backfilled with tailings without jeopardising the stability of either the pit or the surrounding area.

WUG: the level of geotechnical assessment that has been conducted is appropriate given the amount of geological and geotechnical data that is currently available. There are no matters of concern, provided the applicant's proposed conditions of consent are supplemented with appropriate consent conditions involving monitoring of rock movement at the surface to ensure regional stability due to tunnel development and surface stability of the crown pillar above stopes will be maintained.

Ground Settlement: A series of mitigation measures including Trigger Action Response Plans (TARPS) has been recommended by EGL as controls against excessive surface groundwater level reduction and consequent localised settlement and these are all considered to be appropriate. These are encompassed in consent condition C45 d., and there are unlikely to be any issues with

groundwater management as it affects settlement. It is agreed with EGL that some monitoring above the underground mining area is necessary, and that can involve surveys of the levels of ventilation shafts and exploration drillhole collars. This would provide a reasonable overall coverage of the Area 1 mining area. This is not included within the proposed Combined HDC and WRC Consent Conditions, and a further condition of consent is recommended to address this.

Willows Boxcut Design: The conclusion of PSM that this matter does not present any geotechnical challenges that cannot be addressed in the final design is considered reasonable and appropriate, and does not require any further consent conditions (beyond those proposed by the applicant) relating to its final design and excavation.

Overall, HDC's assessment is that with the recommended changes to both the HDC conditions and Combined HDC and WRC conditions being incorporated, overall surface stability across Areas 1,2,3 and 5 will be able to be maintained.

The recommended amendments to the proposed conditions are contained in:

- A 'track-changed' version of the Proposed Conditions for the Hauraki District Council Land Use Consents.
- A 'track-changed' version of the Proposed Conditions Common to the Hauraki District Council and Waikato Regional Council.

There are no significant residual geotechnical impacts that require a proportionality assessment

Blasting and Vibration

HDC's assessment of blasting and vibration matters (by Limray Pty Ltd T/A Blastotechnology) has primarily focussed on a review of the applicant's Blasting and Vibration Assessment (prepared by Heilig & Partners Pty. Ltd.), together with a review of the following:

- A.10-Substantive-Application-Report-Management-and-Monitoring-of-Environmental-Effects;
- B.39 - Bioresarches - Native Frog Effects Assessment;

- B.41-Lloyds-Archey's-Frog-Population;
- B.42_Lloyd's_Hochstetter's Frogs Survey;
- B.58-Lloyd's-Frog-Monitoring-Plan;
- D.03-Hauraki-District-Council-Proposed-Conditions;
- G.16-Statement-of-Evidence-Heilig-and-Partners-Pty-Ltd-John-Heilig;
- H.07-Vibration-Management-Plan (Oceana Gold, dated February 2025); and
- the proposed conditions for the HDC land use consents and the proposed conditions common to HDC and Waikato Regional Council (WRC).

HDC's assessment has considered the impacts of blasting associated with:

- WUG mine;
- Access tunnels; and
- Borrow Pits and GOP, and the related fume and flyrock associated with such activities in those locations.

In respect of blasting associated with these activities, HDC have identified impacts that require attention particularly in respect of blasting associated with the Borrow Pits and GOP, which relate to:

Blasting times: Blasting times for different surface blasting operations will occur multiple times per week, with differently affected sensitive receivers relative to distance and the location of the blast, including those that are authorised outside the project area, but all within the Waihi community. The recommendations of the applicant's Blasting and Vibration Assessment differ from those in the applicant's proposed conditions, and differ from those that have been applied to previous open pit blasting. To address these inconsistencies, and enable these activities to be undertaken in a manner which is better understood, predictable, and enforceable across the various sites, conditions requiring a consistent timeframe for blast events are recommended by HDC.

Overpressure: HDC consider that the extent of overpressure monitoring proposed by the applicant (once per quarter) to achieve compliance with the proposed standard (120 dBL for any blast) is not sufficient. As both ground vibration and airblast overpressure can cause shaking and vibration

inside a house, and since it is not possible for any residential occupant to distinguish between the cause of the two separate effects, if indeed they are even separated in time, it is inappropriate to ignore either one of the impacts in a monitoring programme. It is therefore considered important from a compliance perspective that overpressure monitoring be extended to include every blast fired in the GOP and the three borrow pits, irrespective of the blasting elevation within the pits. A change is recommended to the proposed conditions of consent to reflect this.

Correspondingly, it is also necessary to amend the provisions of the proposed Vibration Monitoring Plan (VPM) to include overpressure monitoring of every surface blast (GOP and the borrow pits), as well as ground vibration monitoring, and for the risk of overpressure non-compliance to be included as a line item in the Risk Assessment table contained at Appendix G of the VMP. This recommended amendment has not been crafted by HDC.

The measurement of blast events in the conditions proposed by the applicant relates to residential land uses, and excludes the consideration of commercially and community occupied premises including activities such as cafes, halls, and other similar premises used for social congregation. The Hauraki District Plan standard (8.3.2.3(3)) requires: 'All measurements shall be taken at or within the boundary of any allotment not owned by the agency responsible for creating the vibration.' HDC consider that there is no basis to depart from this standard relative to the management of amenity effects. A change is recommended to the proposed conditions of consent to reflect this.

Flyrock: The VPM includes a requirement that: 'Prior to any blasting programme beginning, a specific risk assessment (involving technical and practical expertise) will be required to determine appropriate practices to manage the various risks of blasting. Fly-rock will be one of those risks that will be required to be managed. Reporting of this risk assessment may be through either redrafting the Vibration Management Plan or, more likely, a specific risk assessment workshop (the findings of which will be appended to the Management Plan).' The VPM does not include a requirement for any particular methods to be utilised, noting that: 'Another existing mitigation practice includes videoing each shot. If any precursors are observed (e.g. stemming ejection or face bursts) additional

controls such as increasing the uncharged collar depth or modifying confinement can be introduced for future blasts.'

HDC consider this lack of specificity in respect of the methodology required to be employed is insufficient in respect of accountability and safety of all blasting operations. HDC has not recommended a particular amendment to the VPM to address this, and considers this may be addressed through a recommended amendment to the proposed conditions for HDC land use consents.

Fume: as with flyrock, HDC consider that insufficient mechanisms (conditions) are proposed by the applicant to monitor post blast fume generation in GOP (or any of the borrow pit areas) from all blasts. The VPM states: 'As part of the OGNZL Blast Safety Management System, several control measures for addressing post-blast fumes are assessed. These techniques include conservative blast patterns, effective stemming, and utilising explosives that produce relatively low emissions. The same successfully applied procedures for Martha open pit will continue to be implemented for the GOP and borrow area blasting. Because of the very low likelihood of a post-blast fume event occurring when blasting at these latter sites, the recommendation is to continue with the existing Management Plan practices.' These management practices are not detailed in the VPM, which should contain sufficient information to manage and monitor this consent, and include specific monitoring methodology, reporting requirements, or any compliance criteria sufficient and suitable to address all blasts. HDC has not recommended a particular amendment to the VPM to address this, but considers that the VMP should be expanded to detail the methodology to be deployed to monitor fume appearance, and that the Blast Report for every blast include an AEISG-aligned rating. In addition to this, a recommended amendment to the proposed conditions for HDC land use consents is proposed to reflect this, as well as to correspond to the amendment recommended to the VMP.

Wharekirauponga Walking Track tunnel: HDC consider that, in the absence of an analysis of the integrity of this tunnel (beyond the modelling undertaken by the applicant), there is a safety concern/impact arising from blast induced vibrations that requires attention. There is no

consideration of this issue in the VPM, and HDC considers that this may be an appropriate mechanism to address this matter. This recommendation has not been crafted by HDC.

In relation to the above matters, HDC consider that the VMP should be renamed the Blast Management Plan incorporating (as separate sections) the matters of blast-induced ground vibration, air overpressure, flyrock, and nitrous oxide fume, and that the Risk Assessment matrix contained in this document be amended to include the risks associated with high and non-compliant air overpressure levels. If this is not achievable for the issuing of the VMP as a consented document, then HDC consider that the decision should require (by way of a suitable condition) an updated VMP to be prepared and submitted to HDC for certification. This has not been crafted by HDC.

The recommended amendments to the proposed conditions are contained in:

- A 'track-changed' version of the Proposed Conditions for the Hauraki District Council Land Use Consents.
- A 'track-changed' version of the Proposed Conditions Common to the Hauraki District Council and Waikato Regional Council.

There are no significant residual blasting and vibration impacts that require a proportionality assessment.

Lighting

HDC's assessment of lighting matters (by Kern Consultants) has included a review of the applicant's lighting assessment (prepared by Pederson Read) and the proposed conditions for the HDC land use consents.

HDC's assessment agrees with the assessment undertaken by the applicant, and the proposed conditions of consent are suitable and sufficient to control/manage the lighting impacts of the proposed activity, subject to the incorporation of a new consent condition requiring a Lighting

Management Plan to be submitted to HDC for certification. This was recommended by Pederson Read on behalf of the applicant, but not carried forward to the applicant's proposed conditions.

A recommended condition is included in:

- A 'track-changed' version of the Proposed Conditions for the Hauraki District Council Land Use Consents.

There are no significant lighting impacts that require a proportionality assessment.

Acoustics

HDC's assessment of acoustic matters (by Styles Group) has included a review of the applicant's acoustic assessment (prepared by Marshall Day (MD)) and the proposed conditions for the HDC land use consents.

HDC's assessment has focussed on identifying where there is agreement on what are considered the acoustic topics and identifying where there is disagreement with some specific matters, together with identifying where the applicant's proposed conditions require amendment (or need to be supplemented with further specific conditions) to enable the impacts of construction and operational noise to be managed to a reasonable level.

Construction noise: The proposal to establish construction noise limits (as distinct from operational noise limits), and a process for managing the exceedance of these through a Construction Noise Management Plan (CNMP)) is appropriate, provided the conditions and CNMP requirements that control this process are robust, including requiring the consent holder to demonstrate that it has identified and adopted the BPO for minimising the noise effects (not just managing them) and to ensure that the noise effects are reasonable. The HDC conditions recommended by HDC reflect this.

Operational noise: Despite the application explaining that operational noise can be managed (through conditions of consent) to comply with the standards sought (which HDC consider

appropriate), and that this is inclusive of noise generated by other existing consented activities in the area (Areas 5, 6, and 7), it is unclear from the application as to which of these consented activities are being referred to, and it would be helpful for completeness for this information to be confirmed by the applicant.

Helicopter noise: The prediction and assessment of helicopter noise in the MD Report and the management of helicopter noise by the proposed conditions lack integration and specificity. The proposed conditions dealing with helicopter noise by the applicant require amendment (so they are consistent with the MD Report), and further amendment (and new conditions) are required to manage the use of helicopters for the construction and operational phases (particularly as they relate to Area 1) to provide a mechanism to manage the effects, and increase clarity, certainty and enforceability.

Notably, HDC consider that this should include:

- noise limits for residential and rural receivers, which also factors in the cumulative effects of helicopter activities with other operational noise sources, including traffic noise (particularly at Area 2).
- operational (including construction) noise management provisions (in the form of an Operational Noise Management Plan condition) for helicopters servicing the various activities in Area 1.

Recommended conditions are included in:

- A 'track-changed' version of the Proposed Conditions for the Hauraki District Council Land Use Consents.

Overall, HDC's assessment is that with the recommended changes to the HDC conditions being incorporated, the acoustic impacts can be suitably managed.

There are no significant residual acoustic impacts that require a proportionality assessment.

Landscape, Natural Character and Visual

HDC’s assessment of landscape, natural character and visual matters (by Mansergh Graham) has included a review of the applicant’s Landscape, Natural Character, and Visual Effects Report (prepared by Boffa Miskell) together with a review of the following:

- WUG Ecology and Landscape Management Plan Wharekirauponga Underground Mine 2025. Oceana Gold. 3 March 2025. (“ELMP-WUG”).
- Ecology and Landscape Management Plan Waihi Area 2025. Oceana Gold. 3 March 2025. (“ELMP-WA”).
- Proposed Conditions Common to The Hauraki District Council and Waikato Regional Council.
- Proposed Conditions for the Hauraki District Council Land Use Consents.
- Part C- Projects maps and technical drawings.
- The Evidence of Rhys James Girvan.
- Figure A Proposed Closure – WUG Surface Facilities Area. December 2024. Revision 2. Boffa Miskell Ltd (“closure plans”). Figure 6-16 on page 536 of Part A – Waihi North Project – Substantive Application.
- Figure B Proposed Closure – GOP, NRS and TSF3. December 2024. Revision 2. Boffa Miskell Ltd (“closure plans”). Figure 6-17 on page 537 of Part A – Waihi North Project – Substantive Application.

HDC’s assessment of the impacts on landscape, natural character and visual matters is, that while critical of the manner in which the assessment has been undertaken, the impacts are acceptable and appropriate. However, the supporting mitigation framework to achieve this (comprising the LNCVE, the ELMP-WUG and the ELMP-WA), and the corresponding proposed conditions of consent are disparate, lack clarity and integration, and contain critical mitigation recommendations and requirements dispersed across multiple documents without a clearly articulated or cohesive structure. As a result, it is not immediately apparent what specific mitigation actions are required to be achieved, what performance standards must be met, or how the effectiveness of those measures will be evaluated. This fragmented structure to the management plans and the proposed conditions

reduces certainty, and complicates implementation and future compliance monitoring, which will make it more difficult for HDC to administer the consent effectively.

To address this, HDC recommend that the mitigation framework be strengthened by rationalising the proposed conditions, consolidating all mitigation requirements into revised versions of the ELMP-WUG and ELMP-WA, and introducing appropriate performance standards to guide implementation and support effective implementation monitoring. This will have the effect of improving clarity of the intended outcomes, transparency of the approach to achieve those outcomes, and identify how to determine compliance.

Recommendations as to how to achieve this, including examples, are contained in the Mansergh Graham assessment.

To undertake such, and achieve the outcomes identified as being achievable in respect of landscape, natural character and visual impacts, HDC recommend that the implementation strategy for successfully mitigating landscape, natural character, and visual amenity effects is rationalised to ensure it is straightforward to implement, monitor, and evaluate, with success being clearly measurable.

To achieve this, the proposed conditions of consent and the ELMP-WUG and ELMP-WA require amendment to address the key concerns raised, and either involve:

- a. resubmission of the above management plans to the Panel for certification prior to the substantive decision being made, or
- b. their inclusion in the list of management plans to be certified by HDC under Condition C5, and conditions included as to what they should contain, based on the application documentation and the HDC feedback.

Overall, HDC's assessment is that, with the recommended changes being made (via either option), that the landscape, natural character, and visual amenity impacts can be suitably managed.

Where changes are recommended, these are contained in:

- A 'track-changed' version of the Proposed Conditions Common to the Hauraki District Council and Waikato Regional Council.

These recommended changes need to be read in the context of the overall context of the feedback, that amendments to the management plans are required and the conditions will need to be aligned for consistency.

With the integration of the HDC recommendations, there are no significant residual landscape, natural character, and visual amenity impacts that require a proportionality assessment.

Ecology

HDC's assessment of terrestrial ecological matters (by Alliance Ecology Ltd and Bluewattle Ecology (the Terrestrial ecology review)) has included a review of the applicant's suite of expert assessment (listed in Attachment B of the Terrestrial ecology review), together with the proposed conditions for the HDC land use consents and the proposed conditions common to the HDC and Waikato Regional Council, and the following proposed management plans:

- WUG Ecology and Landscape Management Plan (H.01).
- Waihi Area Ecology and Landscape Management Plan (H.02).
- Wharekirauponga Pest Animal Management Plan (H.05) (reviewed by Gerry Kessels only).
- Vibration Management Plan (H.07).

HDC's assessment of the terrestrial ecology impacts is that overall there are likely to be net positive outcomes for indigenous terrestrial biodiversity. However, to achieve such outcomes, HDC consider that the measures proposed (to avoid, remedy, minimise, offset or compensate for adverse effects) in the form of the proposed conditions and management plans (ELMP-WUG, WAPMP, and ELMP-WA), and their integration are not sufficient or suitable to achieve the biodiversity outcomes forecast. In this regard, while HDC consider it appropriate for management plans to be the mechanism (together with appropriate conditions which integrate with them), what is proposed by the applicant is not sufficient to provide certainty that the stated outcomes will be demonstrably

achieved. What is proposed by the applicant also contains discrepancies between management plans and conditions across various ecological matters.

To address this, HDC recommend that changes be made to the proposed conditions, and for updates/amendments to be made to the management plans to align with the conditions, to ensure consistency in ecological management approaches, and avoid discrepancies. HDC have recommended specific changes to the proposed conditions to achieve this, and have also identified other proposed conditions where more complex changes are considered to be required. In these latter circumstances, HDC have not crafted recommended amendments.

As with HDC's feedback in respect of landscape, natural character, and visual amenity impacts the proposed conditions of consent and the ELMP-WUG, ELMP-WA (and WAPMP) require amendment to address the key concerns raised, and either involve:

- a. resubmission of the above management plans to the Panel for certification prior to the substantive decision being made, or
- b. their inclusion in the list of management plans to be certified by HDC under Condition C5, and conditions included as to what they should contain, based on the application documentation and the HDC feedback.

Where changes are recommended, and where further changes are considered necessary, these are contained in:

- A 'track-changed' version of the Proposed Conditions for the Hauraki District Council Land Use Consents
- A 'track-changed' version of the Proposed Conditions Common to the Hauraki District Council and Waikato Regional Council.

These recommended changes need to be read in the context of the overall context of the feedback, that amendments to the management plans are required and the conditions will need to be aligned for consistency.

Overall, HDC's assessment is that, with the recommended changes being made (via either option), the terrestrial ecological impacts can be suitably managed.

With the integration of the HDC recommendations, there are no significant residual terrestrial ecological impacts that require a proportionality assessment.

Economics

HDC's assessment of the economic effects (by Market Economics) provides a peer review of the applicant's Economic Effects of the Waihi North Project report (prepared by Eaquib & Eaquib) focusing on the approach adopted, the assumptions made, and results of the analysis in respect of the economic effects.

HDC's review finds that:

- At the local and regional level, the levels of additional employment sustained are significant leading to significant economic benefits.
- At the national level, the benefits are measured in terms of (employment) and the GDP generated from expenditure, which is robust, as well as royalties (\$134m nominally, or between \$34m and \$98m when discounted) and corporate tax (at 16%).
- A robust assessment of the expenditures and likely economic effects associated with the project is presented, which itemises accurately the likely employment effects and how expenditure is likely to be distributed across the different spatial scales. While the applicant's assessment does not provide accurate measures of contribution to GDP and by presenting all figures in nominal terms, does not accurately portray revenues and impacts that are expected to occur, in current terms this is a normal part of assessing flows of revenue and impacts over long time horizons to ensure they can be compared accurately with activities that occur today (such as comparing additional GDP with current district and Regional GDP), and by failing to do so, the applicant's assessment overstates likely effects and therefore likely benefits in this regard.

- However, on balance, HDC agrees that the project generates significant economic benefits at the local and regional level. While the benefits also exist at the national level, their effect is more muted due to the repatriation of profits.

Overall, HDC's assessment is that the project will generate regional (and local) and national benefits.

Further Planning commentary

Further to the impacts identified by HDC's specialists, and the corresponding amendments recommended to the proposed HDC land use consents and the proposed conditions common to HDC and WRC resource consent conditions, there are further matters that HDC consider require attention in the form of further conditions and amendments to conditions, and/or information from the applicant to inform the Panel's decision. These are reflected in the recommended amendments to the proposed conditions for the HDC land use consents and the proposed conditions common to HDC and Waikato Regional Council, and include:

HDC land use consents

- The combination of resource consents/authorisations held for mining activities that overlap with and/or are located on/under land adjacent to the project Areas results in a complicated regulatory environment. HDC is concerned about the integration of the project with these consents/authorisations, and the extent to which there are resultant overlapping activities and conditions of consent for the same/similar activity. HDC considers that it is necessary for a range of reasons, including administration of the respective consents, for there to be clarity as to which consent prevails, and which conditions apply to which activity being undertaken. Several conditions are recommended by HDC to be amended to attempt to achieve this, but HDC consider it incumbent on the applicant to address this within this application, as opposed to leaving this to be addressed following the granting of consent, for example by way of variations to the conditions of the previous/current consents/authorisations held.

- The proposed conditions include ‘roll overs’ of conditions that are contained in previous/current consents. HDC consider that the conditions are required to be crafted to relate to the project for which consent is sought, and where a previous consent includes a similar requirement, that this can be referenced accordingly, but not relied on.

Conditions common to HDC and WRC

- As with the HDC conditions, the combination of resource consents/authorisations held for mining activities that overlap with and/or are located on/under land adjacent to the project Areas results in a complicated regulatory environment. HDC is concerned with the integration of the project with these consents/authorisations, and the extent to which there are resultant overlapping activities and conditions of consent for the same/similar activity. HDC considers that it is necessary for a range of reasons, including administration of the respective consents, for there to be clarity as to which consent prevails, and which conditions apply to which activity being undertaken. Several conditions are recommended to be amended to attempt to achieve this, but HDC consider it incumbent on the applicant to address this within this application, as opposed to leaving this to be addressed following the granting of consent, for example by way of variations to the conditions of the previous/current consents/authorisations held.
- There are several conditions which include provision for certification by parties other than the consent authority. HDC consider that certification is the Council’s responsibility (along with WRC), and this responsibility cannot be abrogated or delegated to a third party. Third parties may be involved in a review process for a matter prior to it being submitted for certification. Recommended amendments are proposed to conditions to address this.
- The proposed conditions include the appointment of a Peer Review Panel. Such a Panel does not have a statutory function, and the HDC is not reliant on the Peer Review Panel to satisfy the requirements of any conditions of consent. If retained, as an augier condition, any reference to Council’s role should be deleted.
- As with the HDC conditions, the proposed conditions include ‘roll overs’ of conditions that are contained in previous/current consents. HDC consider that the conditions are required to be crafted to relate to the project for which consent is sought, and where a

previous consent includes a similar requirement, that this can be referenced accordingly, but not relied on.

- The proposed conditions include a requirement to provide and maintain in favour of the Councils a rehabilitation bond, which includes a requirement to enable the Councils, in the event of the bond being called upon, to purchase Industrial and Special Risk Insurance in the sum of \$17 million (2025 dollars) and public liability insurance to the sum of \$7 million (2025 dollars). The basis for these sums has not been the subject of an assessment in the application to ascertain their quantum, relative to their purpose. HDC consider it incumbent on the applicant to address this, to provide rationalisation for the proposed condition.
- The proposed conditions require a Trust (the Martha Trust (the Trust)) that was established for a separate consent matter to take responsibility for post closure matters. The scope of these conditions requires the approval of a third party. In the absence of this, HDC as the consent authority cannot impose/enforce this condition. Further to this, with the proposed consent condition(s) being based on a previous consent matter, HDC is concerned (despite the wording of the condition) that it is unclear how such a condition can impose requirements on HDC to perform.
- The proposed conditions require a capitalisation bond to secure the settlement on the Trust of the required capital sum to fund the Trust to carry out its obligations. Leaving aside the comment above concerning the Trust, this proposed bond is to be based on a residual risk assessment. The application material does not contain an explanation/assessment of the terms/parameters that such a residual risk assessment is to contain, or what acceptance, approval, or certification process this is to follow. HDC consider it incumbent on the applicant to address this, to provide rationalisation for this matter to inform the basis for the condition, as there is no mechanism proposed to debate the scope and suitability of the assessment to be provided. Related to this, HDC is concerned as to the costs incurred in this process, particularly if there is a dispute, and HDC consider this to be a matter that should be clarified by the applicant.

Consideration of the FTAA

Under section 85(3) of the Act, the Panel may decline an approval where adverse impacts are sufficiently significant to be out of proportion to the project's regional or national benefits.

This assessment requires consideration of:

- The nature and significance of the adverse impacts identified through the section 81(2) process;
- The project's regional or national benefits as assessed under section 81(4);
- Whether proposed conditions or applicant modifications could adequately address adverse impacts;
- Whether the proportionality threshold is met even after accounting for mitigation measures, compensation etc.

Based on the detailed analysis above, no adverse impacts have been identified, individually and collectively, as (subject to amendments to conditions recommended) qualifying for the section 85(3) threshold that warrant the application being declined.

As such a proportionality assessment has not been undertaken.

For the avoidance of doubt, the HDC's assessment has not identified any reasons why the application must be declined in terms of section 85(1) of the Act.

Relative to section 85(4) of the Act, HDC's assessment has considered the identified adverse impacts, and concludes that they will not result in a situation which overall can be found to be inconsistent with or contrary to a provision of a specified Act or any other document that the Panel must take into account or otherwise consider in complying with section 81(2). Related to this, the recommendations of HDC in respect of conditions are considered no more onerous than necessary to address the reason for which they are set, in accordance with the provision of the FTAA.

Information gaps

The above review has identified what further information (and conditions) is necessary prior to the determination of the application, and the Panel should request that this information is provided by the applicant to inform their decision, or prepare conditions consistent with those recommended by HDC.

K:\Project\Projects\Hauraki District Council\Waihi North\Fast Track\HDC Team Comments\Bentley Review Final.Docx

Craig Irving McGarr
Qualifications and Experience

Occupation Town Planner & Resource Management Consultant

Qualifications B. Plan.

Affiliations Member of N.Z.P.I. & R.M.L.A.

As a director of Bentley & Co Ltd, and a senior planning practitioner Craig McGarr has experience in local government, and more than 30 years' experience as a specialist consultant in resource management processes, with a sound understanding of commercial drivers and their impact on statutory planning and consenting processes. The provision of strategic resource management advice to provide solutions for large capital projects is a key strength for commercial, corporate and public sector clients.

Specific skills include: Due diligence and resource management risk assessment; Resource consent and plan change strategies; Project management for planning processes; Preparation and management of resource consent applications and plan changes; Submissions on resource consents, plan change applications and notices of requirement; Expert evidence for Local Authority and Environmental Court hearings; Affidavits and planning evidence for the High Court; Resource management advice, and evidence in relation to valuation disputes (arbitration); and Peer reviews.

I have been engaged by Hauraki District Council (HDC) since 2019 to provide planning and resource management services and advice in respect of mining related matters. My engagement in 2019 was to enable me to get up to speed with the nature and scope of mining activities in the District, relative to legacy consents and authorisations, so as to be sufficiently prepared to advise on and assist with the consideration of the Waihi North Project, irrespective of the process that such an application may entail.

Prior to the lodgement of the substantive application, and since being engaged, I have been iteratively involved on behalf of HDC in consulting with OceanaGold, and reviewing drafts of application material that have informed the substantive application, including assisting with the coordination and briefing of the HDC specialist team of advisors.

In the intervening period, my engagement has also included the provision of advice in respect of (and assessment of) applications for resource consent by OceanaGold for a variety of mining and mining related projects, inclusive of:

- Exploration (and related) activities in the Wharekairauponga Valley.

- Mining activities in association with the development of the existing Waihi Surface facilities Area, and Tailings Storage Facilities.
- A variety of applications for variations to existing consents held for underground mining activities.
- The Services Trench application which was originally intended to form part of the Waihi North Project.
- Proposed Plan Change 6 to the Hauraki District Plan, concerning a proposed extension to the Matha Mineral Zone, to facilitate an extension of surface mining activity in association with the Martha Pit.

I have visited the site of the application on numerous occasions, including by helicopter and foot access to the Wharekirauponga Valley.

As a planning practitioner, I can confirm that the advice that I provide, and the assessment undertaken in respect of the project is in accordance with the Code of Conduct for expert witnesses contained in the Environment Court of New Zealand Practice Note 2023 and that I have complied with it when preparing my advice. Other than when I state I am relying on the advice of another person, my advice is within my area of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions that I express.

11 AUGUST 2025

Hauraki District Council

c/- Leigh Robcke

Email: Leigh.Robcke@hauraki-dc.govt.nz

26 London Street
Hamilton 3204
PO Box 9266
Hamilton 3240
New Zealand
64 (0)7 957 2727

HD1391 – Fast Track Approvals Act 2024 – Review of proposed conditions

Waihi Gold Company Limited (WGCL) and Oceana Gold (New Zealand) Ltd (OGNZL) have lodged an application with the Environmental Protection Authority (EPA) under the Fast-track Approvals Act 2024 (Act). WGCL and OGNZL are joint applicants as the owners of the site.

The Hauraki District Council (HDC) has engaged HD Geo Limited (HD Geo) to conduct a peer review of the proposed conditions for the HDC land use consents and the HDC and Waikato Regional Council (WRC) resource consents; and to provide comments on the suitability of the conditions.

The relevant conditions

The relevant conditions in scope for this review are:

HDC land use consents conditions

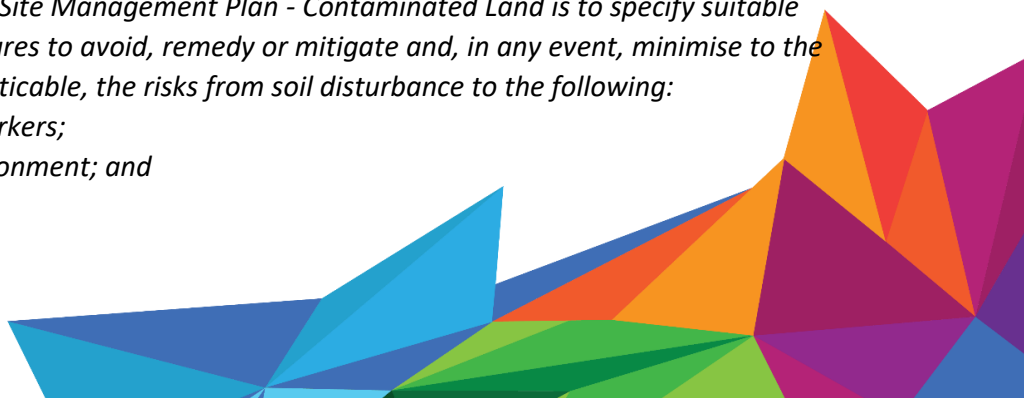
90. *The Consent Holder must submit a Site Management Plan - Contaminated Land for each Area other than Areas 1 and 3 for certification under Condition C5 of Schedule One.*

Certification is required to verify that the Site Management Plan – Contaminated Land:

- a.** *Includes actions, methods, monitoring programmes and trigger levels as appropriate to meet the objective in Condition 91; and*
- b.** *Satisfies the requirements in Condition 92.*

91. *The objective of the Site Management Plan - Contaminated Land is to specify suitable management measures to avoid, remedy or mitigate and, in any event, minimise to the greatest extent practicable, the risks from soil disturbance to the following:*

- a.** *the health of workers;*
- b.** *the on-site environment; and*



- c. the off-site environment (including the health of neighbouring site users).*

92. *The Site Management Plan - Contaminated Land must be prepared by a suitably qualified and experienced professional in accordance with Contaminated Land Management Guideline No.1: Reporting on Contaminated Sites in New Zealand, Ministry for the Environment (revised 2021) or any subsequent version of the guideline (in which case the latter prevails). The Site Management Plan – Contaminated Land must include, as a minimum:*

- a. A summary of the known site history, identified HAIL areas and expected contamination conditions as well as the investigation methodology for sampling to be undertaken prior to works commencing in the identified HAIL areas;*
- b. The contaminated land-related soil management requirements; and*
- c. The contaminated land-related procedures to guide contractors in materials management, reuse, disposal, health and safety and response to unexpected contamination encounters.*

HDC and WRC resource consent conditions

C5. *No later than the submission date referred to for the relevant document, the following documents must be submitted to the Consent Authority for certification:*

- g. Site Management Plan – Contaminated Land within 30 working days prior to the commencement of operational activities in the relevant area*

Assessment

There is an opportunity for review of the Site Management Plan required by C5, prior to commencement of operational activities in the relevant areas.

Therefore, further area-specific investigation in preparation for the earthworks will be able to be completed, feeding into area-specific plans that will be implemented to manage the earthworks and mitigate risk to human health and the environment.

Our assessment is that the conditions allow ample opportunity for a reasonable review of these plans, ensuring that HDCs interests are well represented before earthworks commence.

The conditions for both the HDC land use consents and the HDC and WRC resource consents are appropriate for the fast-track approval to be granted.

Recommendations

We recommend that the proposed conditions listed above are accepted by HDC and incorporated into the consents issued under the Act.

Closing

We trust that this memo satisfies the scope of our engagement. If you have any questions, please contact the undersigned.

Sincerely,



PAUL GIBBINS, CENVP
Technical Director, Environment
Paul@hdgeo.co.nz
022 155 8308



Evaluation of historic resources technical reports and recommendations for Waihi North Project

Dr Neville Ritchie

Consultant Archaeologist & Heritage Specialist

Qualifications

I have over 50 years' experience in archaeology and archaeological site management. I was awarded a lifetime achievement award by NZ Archaeological Association in 2024.

I am the author of several books on heritage matters including Coromandel Gold: A Guide to the Historic Goldfields of the Coromandel Peninsula (with Phil Moore).

My involvement in this application was to peer review the heritage technical reports and significance evaluations prepared by Clough & Associates, together with the proposed conditions on this subject. To this end I have reviewed the documents concerning historic resource recording, evaluation, and protection for the WNP - accessed via the link <https://fs.haurakidc.govt.nz%2Fs%2FJoa63JsnofP5jwZ>, which corresponds to the documents contained in the Fast Track website for this project.

Technical Report 49a - "Waihi North Project-Fast Track Approval: Assessment of Historic Heritage and Archaeological Effects prepared for OceanaGold NZ Ltd January 2025 by K Tatton and R Clough (Clough Associates) Appendix 1 includes the original and updates of all site records of the sites affected within the project area. Appendix 2 contains relevant site information drawn from the Hauraki District Council Heritage Inventory Records and includes the comprehensive Union Hill (Waihi) Heritage Landscape Management Plan.

Technical Report 49b comprises a report "OceanaGold Waihi North Project Historic and Archaeological Background Part 1" by A Brown, Z Burnett, R Clough & K Tatton (Clough Associates) Final version May 2018.

Comment- I note that Clough Associates have undertaken comprehensive historical research, archaeological survey work, and assessed other pertinent information such as conservation plans and walkway proposals. As a consequence, in my professional opinion they have produced an accurate, fair and reasonable assessment of the overall impact of the project on archaeological resources and clearly identified the more significant impacts.

The Proposed Archaeological Authority

Comment - The proposed archaeological authority application is comprehensive and based on my experience includes all the information and provisional conditions likely to be in an authority granted by Heritage NZ.

Conditions

Part D-02 Proposed Combined HDC/WRC conditions specifically C29 Accidental Discovery Protocols (ADP).

Comment- The protocols are comprehensive, and cover what is expected in an ADP.

Special condition 88 -Establish a photographic record of any pre-1900 workings and retrieve items from historic workings for display and interpretation purposes subject to safety of staff and the mining activity being undertaken.

Comment- This is a practical and reasonable condition.

Archaeological Management Plan (in Part H Section C4g)

The Archaeological Management Plan Waihi North Project prepared for Oceana Gold(NZ) Ltd by K Tatton and R Clough (Clough Associates) in February 2023 (23pp) covers the 4 main work areas- Gladstone Open Pit (GOP), Wharekirauponga Mining Area (WKP), North Rock Stack management, and Tailings Storage Site 3. It also covers General WNP site management in relation to historic resource protection, protocols relating to the discovery of koiwi or taonga, standdown periods, and applicant's and contractors' responsibilities

Comment- In my professional opinion, the WNP Management Plan is comprehensive and when implemented will ensure the maximum amount of learning from the historic places which will be all or partially modified in the course of the WNP.

Concluding Comments

The various reports commissioned by OceanaGold from Clough and Associates (various authors) concerning the evaluation of the historic resources which will be impacted either wholly or in part by the WNP more than adequately address the heritage effects of WNP . They cover all the bases- an overview of human activity in the Waihi area, the identification and assessment of previously recorded sites, the recording and assessment of previously unrecorded archaeological sites. (virtually all associated with pre-1900 mining in the area). Their evaluations put a fair and reasonable rating on the significance of the affected sites and the degree to which each will be affected. The Management Plan addresses all the issues that are expected in a management plan for the historic heritage sites affected by a major project and specifically addresses the effects and potential mitigation measures to reduce the impacts of the WNP on historic mining sites. I agree with the assessment undertaken, and the proposed conditions of consent as being suitable and sufficient to control/manage the heritage effects of the proposed activity.

18 August 2025

Waihi North: Fast Track Application – Review of Transportation Engineering Assessment

Dear Craig

1. Introduction

a) My qualifications & experience

- o Chartered Professional Engineer (Transportation Engineering) with 23-years professional engineering experience
- o Bachelor of Engineering (honours)
- o NZ Certificate in Engineering
- o Member Engineering NZ
- o NZTA Safe System Engineering Certificate
- o Certified Tender Evaluator

b) Technical assessment area

- o Transportation Engineering, including road safety.

c) Code of conduct statement

I confirm that I have read the Expert Witness Code of Conduct set out in the Environment Court's Practice Note 2023. I have complied with the Code of Conduct in preparing this evidence and agree to comply with it while giving evidence.

Except where I state that I am relying on the evidence of another person, this written evidence is within my area of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed in this evidence.

2. Transportation Assessment Report

With respect to my area of expertise (Transportation Engineering, including road safety advice), I have reviewed the Transportation Assessment Report that was submitted as part of the Fast Track Substantive application.

I have also carried out a site visit of the following publicly accessible Hauraki District Council roads; Willows Rd, Baxter Rd, Kenny St, Moresby Avenue, Martha St & Haszard St.

It is my opinion that the recommendations outlined in the Transportation Assessment Report are sufficient as currently presented and no further information is required. With this, it has been determined that any potential transportation impacts related to vehicular access and traffic associated with the project—both during construction and in the long term—will be effectively avoided or reduced to an acceptable standard.

3. Proposed Conditions for the Hauraki District Council Land Use Consents (Transport, Conditions 70-86)

With respect to my area of expertise (Transportation Engineering, including road safety advice) I have reviewed the Proposed Conditions for the Hauraki District Council Land Use Consent (Transport, Conditions 70-82), that were submitted as part of the Fast Track Substantive application. The conditions reviewed by me and my commentary on points of interest are as follows:

Condition No.	Proposed Condition	Comments
<i>Willows Road Upgrades</i>		
72	The Consent Holder must upgrade Willows Road and the intersection of State Highway 25 and Willows Road at its cost in accordance with Conditions 73 and 74: a. Prior to heavy vehicle movements as measured at the entrance to the Willows SFA reaching greater than 40 vehicle movements per day; or b. No later than six months after any construction activity listed in Condition 6 begins in Area 2; whichever occurs first. The Consent Holder must: c. Submit final designs for the upgrades to the Hauraki District Council for certification that they meet the requirements of Conditions 73 and 74 prior to commencing the upgrade works, including the results of the independent design safety audits required by Conditions 73 and 74; and d. Provide documentary evidence that the upgrades certified under (c) have been completed. The Consent Holder must maintain a log of vehicles at the Area 2 access gate for the first six months of construction or	I agree with the findings of the Transportation Assessment included with the Fast Track Substantive application. It is also my opinion that the proposed consent condition is adequate to satisfy the corresponding findings of this report.



	until the upgrades required by this condition are complete, whichever occurs first. The vehicle log must be provided to the Hauraki District Council on request.	
73	Unless the New Zealand Transport Agency provides written confirmation that one or both of these upgrades is not required, the upgrade of the intersection of Stage Highway 25 and Willows Road must include: a. A right turn bay into Willows Road from SH25 which meets the minimum requirements of the New Zealand Transport Agency Traffic Control Devices Manual Part 4 (Intersections) Version 1 December 2020 Section 15 (including Figure 15.5 "Markings for right turn bays in rural areas") or any subsequent version of the guideline (in which case the latter prevails) and meets the New Zealand Transport Agency requirements for forward visibility; and b. Widening the left turn shoulder into Willows Road from SH25 to 2.5 m in accordance with Diagram E in the NZTA Planning Policy Manual version 1 2007 or any subsequent version of that standard (in which case the latter prevails). The design of the proposed upgrade of the intersection between SH25 and Willows Road must be subject to an independent design safety audit and post construction safety audit. Those audits are to be carried out by safety auditors experienced in highway intersection design, appointed in consultation with the New Zealand Transport Agency. Any changes recommended as a result of the safety audits, including design changes and post construction changes, must be implemented by the Consent Holder provided they are agreed to by the Hauraki District Council and the New Zealand Transport Agency.	I agree with the findings of the Transportation Assessment included with the Fast Track Substantive application. It is also my opinion that the proposed consent condition is adequate to satisfy the corresponding findings of this report.
74	The design of the proposed upgrade of Willows Road must be subject to an independent design safety audit and post construction safety audit. Those audits are to be carried out by safety auditors experience in highwater intersection design, appointed in consultation with the New Zealand Transport Agency. Any changes recommended as a result of the safety audits, including design changes and post construction changes, must be implemented by the Consent Holder provided they are agreed to by the Hauraki District Council and the New Zealand Transport Agency. The upgrade of Willows Road must include:	I agree with the findings of the Transportation Assessment included with the Fast Track Substantive application. It is also my opinion that the proposed consent condition is adequate to satisfy the corresponding findings of this report.



	a. Marking a road centreline over the full length of road; b. Any curve seal widening identified in the safety audit as being necessary to ensure safety and that the design vehicle is able to negotiate all curves within its lane; c. Upgrading the single lane bridge approaches in accordance with the specifications for single lane bridge approaches and controls in New Zealand Transport Agency Traffic control devices manual (Part 5) Version 1 December 2020 or any subsequent version of the guideline (in which case the latter prevails). ; d. Constructing a 6.0m wide sealed road extension between the end of the existing two way section of the road and the proposed site access in accordance with the Hauraki District Council Engineering Manual; e. Installing a roadside barrier system on both sides of the road at the culvert located 0.4 km from the Willows Road / State Highway 25 intersection (labelled no. 40) or, alternative safety measures installed to the satisfaction of the Hauraki District Council's Transportation Manager; and f. Constructing a turning head at the northern end of the existing two-lane road or at the proposed access location to allow the public to turn around.	
<i>Willows Road Maintenance</i>		
75	At least two months prior to the commencement of construction activities in Area 2, and prior to commencing the upgrade of Willows Road required by Condition 72, the Consent Holder must engage a suitably qualified and experienced road maintenance engineer to prepare a programme to assess and record the condition of the existing road pavement and bridge on Willows Road. This programme must be submitted to the Hauraki District Council for certification before the assessment is conducted. The inspection and recording of the road pavement condition, and bridge condition, must be undertaken in consultation with the Hauraki District Council's Transportation Manager. The pavement condition rating (including vehicle counts) is to be used as the baseline for assessing the works required to return the road pavement to at least its standard / condition prior to the commencement of the construction of the Willows SFA.	I agree with the findings of the Transportation Assessment included with the Fast Track Substantive application. It is also my opinion that the proposed consent condition is adequate to satisfy the corresponding findings of this report.



76	For the period from construction of the Willows SFA to final closure and restoration, the Consent Holder must, in conjunction with a Council representative, undertake a road pavement inspection of Willows Road annually or at such other intervals as may be agreed in writing by the Hauraki District Council.	I agree with the findings of the Transportation Assessment included with the Fast Track Substantive application. It is also my opinion that the proposed consent condition is adequate to satisfy the corresponding findings of this report.
77	The Consent Holder must reimburse the Hauraki District Council for the cost of any road pavement maintenance (potholes / surface rutting etc) caused by the activities authorised by this consent. The maintenance cost will be calculated on a pro-rata basis against the baseline heavy vehicle traffic volumes and taking into account any financial assistance received by Council for maintenance.	I agree with the findings of the Transportation Assessment included with the Fast Track Substantive application. It is also my opinion that the proposed consent condition is adequate to satisfy the corresponding findings of this report.
78	At the completion of the rehabilitation and closure of Area 2, and where not otherwise reimbursed in accordance with Condition 77, the Consent Holder must return the road pavement condition of Willows Road to that identified in the road pavement condition survey carried out in accordance with Condition 75 of this consent at the Consent Holder's expense and to the satisfaction of the Hauraki District Council.	I agree with the findings of the Transportation Assessment included with the Fast Track Substantive application. It is also my opinion that the proposed consent condition is adequate to satisfy the corresponding findings of this report.
<i>Baxter Road</i>		
79	At least two months prior to the commencement of construction activities in Areas 5, 6 or 7, the Consent Holder must engage a suitably qualified and experienced road maintenance engineer to prepare a programme to record the condition of the existing road pavement and bridge on Baxter Road. This programme must be submitted to the Hauraki District Council for certification before the assessment is conducted. The inspection and recording of the road pavement condition, and bridge condition, must be undertaken in consultation with the Hauraki District Council's Transportation Manager. The pavement condition rating (including vehicle counts) is to be used as the baseline for assessing the works required during the period in which mining operations authorised by this consent are occurring, to return the road pavement to at least its standard / condition prior to the commencement of the construction works in Areas 5, 6 or 7.	I agree with the findings of the Transportation Assessment included with the Fast Track Substantive application. It is also my opinion that the proposed consent condition is adequate to satisfy the corresponding findings of this report.
80	The Consent Holder must, in conjunction with a Council representative, undertake an annual road pavement inspection of Baxter Road during the term of the consent.	I agree with the findings of the Transportation Assessment included with the Fast Track Substantive application. It is



		also my opinion that the proposed consent condition is adequate to satisfy the corresponding findings of this report.
81	The Consent Holder must reimburse the Hauraki District Council for the cost of any road pavement maintenance (potholes / surface rutting etc) on Baxter Road caused by the activities authorised by this consent. The maintenance cost will be calculated on a pro-rata basis against the baseline heavy vehicle traffic volumes and taking into account any financial assistance received by Council for maintenance.	I agree with the findings of the Transportation Assessment included with the Fast Track Substantive application. It is also my opinion that the proposed consent condition is adequate to satisfy the corresponding findings of this report.
82	At the completion of construction works at Areas 5, 6 and 7, and where not otherwise reimbursed in accordance with Condition 81, the Consent Holder must return the road pavement condition of Baxter Road to that identified in the road pavement condition survey carried out in accordance with Condition 79 of this consent at the Consent Holder's expense and to the satisfaction of the Hauraki District Council.	I agree with the findings of the Transportation Assessment included with the Fast Track Substantive application. It is also my opinion that the proposed consent condition is adequate to satisfy the corresponding findings of this report.
<i>Parking</i>		
83	The Consent Holder must provide sufficient off street parking to accommodate all expected staff, contractor and visitor vehicles entering the Mine Site, in order that those persons will not need to park in public areas.	I agree with the findings of the Transportation Assessment included with the Fast Track Substantive application. It is also my opinion that the proposed consent condition is adequate to satisfy the corresponding findings of this report.
<i>Construction Traffic Management Plan</i>		
84	For each Area described in Condition C1(a) of Schedule One the Consent Holder must submit a Construction Traffic Management Plan for certification under Condition C5 of Schedule One. Certification is required to verify that the Construction Traffic Management Plan: a. Includes actions, methods and monitoring programmes as appropriate to meet the objectives in Condition 85; and b. Satisfies the requirements in Condition 86. <i>Advice Note: Construction Traffic Management Plans may be submitted for each Area separately or multiple Areas combined.</i>	I agree with the findings of the Transportation Assessment included with the Fast Track Substantive application. It is also my opinion that the proposed consent condition is adequate to satisfy the corresponding findings of this report.



	<i>Advice Note: While no direct traffic access provisions are associated with Areas 1 and 3 of the project, the Construction Traffic Management Plan(s) are to provide coverage of matters relating to the transportation of workers to and from these areas (including parking provisions for these workers).</i>	
85	The objectives of the Construction Traffic Management Plan are to set out how the Consent Holder will manage traffic to and from each Area to: a. Protect public safety; and b. Minimise delays to road users.	I agree with the findings of the Transportation Assessment included with the Fast Track Substantive application. It is also my opinion that the proposed consent condition is adequate to satisfy the corresponding findings of this report.
86	The Construction Traffic Management Plan must include, as a minimum: a. Details of how legislative requirements and consent conditions in relation to construction traffic will be satisfied; b. The proposed construction programme, traffic volumes and routes; c. Driver protocols; d. Measures to manage over-weight and over-dimension loads; e. Measures to maintain access to manage effects on adjacent properties and farm operations, including stock crossings; f. School bus routes and timetables; g. Communication arrangements; h. Monitoring requirements (including in relation to road pavements); i. Management measures for work within the public road corridor, including: i. To manage existing road users with respect to construction traffic associated with work in the road corridor; ii. To ensure that all roads remain open to traffic at all times, except where temporary traffic control may be employed to partially close lanes or shoulders, provided that any traffic delays do not exceed five minutes at any one time during the day, or a cumulative period of 30 minutes within an hour, unless otherwise agreed upon with the Consent Authority. When the site is unattended the maximum length of single lane shall be managed by	I agree with the findings of the Transportation Assessment included with the Fast Track Substantive application. It is also my opinion that the proposed consent condition is adequate to satisfy the corresponding findings of this report.



	automated signals to minimise delays to less than one minute; iii. To ensure access to properties is maintained at all times unless otherwise agreed with the property owner; j. Measures to manage arrivals and departures over the construction period, including: i. Monitoring of traffic distribution and performance at the intersection of Baxter Road and State Highway 2 during periods of high traffic volume; and ii. An adaptive management approach which triggers modification of management measures where monitoring shows the acceptable levels of service at the intersection are not being achieved; k. Management of aggregate cartage routes, including any necessary measures relating to the use of Crean Road by heavy vehicles travelling to and from Areas 5, 6 and 7 via Baxter Road; l. Identification and provision of adequate on-site (or offsite) parking for each Area for the project duration to ensure compliance with Condition 83; m. Measures to facilitate and manage the bussing of shift workers to the Willows Road Surface Area Facilities located in Area 2; n. Management of deliveries to each Area; and o. For Areas 5, 6 or 7, management of any use of Moore Street to gain access in the event of a flooding event should this be required.	

4. Assessment

In conclusion, from a transportation engineering and road safety perspective, I find that:

- The recommendations outlined in the Transportation Assessment Report are sufficient as currently presented and no further information is required.
- Additionally, the proposed conditions for the Hauraki District Council Land Use Consents (Transport, Conditions 70–86) are also satisfactory in their present form.

Overall, after reviewing the above listed documentation, and proposed conditions, it is my opinion that any potential transportation impacts arising from the proposal —both during construction and in the long term—will be effectively avoided, remedied or mitigated to the point they are acceptable.

Regards,



John Kaczon, Technical Director

Hauraki District Council
 PO Box 17
 PAEROA 3640

MEMORANDUM

ON REPORTS AND PROPOSED CONDITIONS FOR FAST TRACK APPLICATION FOR WAIHI NORTH PROPOSAL WITH REGARD TO HAZARDOUS SUBSTANCE RISKS

My name is Norbert Schaffoener. I am an independent expert in environmental risk management, particularly in relation to hazardous facilities. I have over 30 years of relevant experience in environmental engineering and environmental planning (land use). While not strictly applicable I confirm that I am familiar with and have adhered to the Environment Court Practice Note 2023 (Code of Conduct for Expert Witnesses) in the preparation of this memorandum. I confirm that the content of this document is within my area of expertise.

I have reviewed the following documents supporting the recent fast-track application by Oceana Gold Ltd. for the proposed Waihi North development, with respect to the storage and use of hazardous substances on site:

Document type	Author	Title	Date
Assessment of Effects	OGNZL	Substantive Application Report – A. 09, s. 6.16	March 2025
Hazardous Substances – Technical Report	Tonkin & Taylor	Waihi North Project - Waihi Processing Plant, Water Treatment Plant and Waste Disposal Area – B. 18	February 2025
Hazardous Substances – Technical Report	Tonkin & Taylor	Waihi North Project - Storage and use of hazardous substances at Willows Road site and the Wharekirauponga Underground Mine – B. 19	February 2025
Hazardous Substances – Technical Report	Tonkin & Taylor	Waihi North Project – Exploratory works within the Coromandel Forest Park - B. 20	February 2025
Statement of Evidence	Tonkin & Taylor	Rob Van de Munckhof	20 February 2025
Conditions	OGNZL	Combined proposed conditions HDC & WRC – D.02, as amended	28 July 2025
Conditions	OGNZL	Proposed conditions HDC – D.03, as amended	28 July 2025

I note the following matters:

1. The **Assessment of Effects** relies, in its summary of effects of hazardous substances (s 6.16), on the Tonkin & Taylor reports. The Assessment states that a Hazardous Substance Management Plan will be prepared for Area 1 only (s. 6.16.1). This is incorrect and should include Areas 2, 5 and 6 (see proposed conditions).

T&T Waihi North Project - Hazardous Substances Technical Assessment - Waihi Processing Plant, Water Treatment Plant and Waste Disposal Area, February 2025

2. In my opinion the risk assessments in the T&T reports are relatively basic and qualitative (a simple 5x5 matrix), and contain a number of errors and inconsistencies, including:

- Section 1.4 and Appendix F, Table 1 refer to the “Risk Assessment Methodology for Hazardous Substances, Environmental Protection Authority, January 2020”. Apart from the fact that the methodology is for HSNO assessments for new substances, not for land use planning, the current version of the methodology is December 2022;
- Section 3.5.3 refers to Table 3.2 when it should be Table 3.3;
- The quantities of hazardous substances specified still vary between mass and volume (and at least once, for ANE in Table 3.2, no dimension is specified). There appear to be inconsistencies in this between the report and the Proposed Conditions. For example, Proposed Condition 61 lists 40,000 l of Diesel for Area 6 (in addition to the 200,000 l in Area 5) which is not included in Table 3.2;
- Appendix F Table 2 and Table 3 refer to AS/NZS 4360:1999. The current version is AS/NZS 4360:2004.

T&T Waihi North Project - Hazardous Substances Technical Assessment - Willows Road site and the Wharekirauponga Underground Mine, February 2025

3. As per above, there are errors and inconsistencies in Section 1.4 and Appendix J Tables 1, 2 and 3.
4. The same applies to inconsistencies in quantities of substances between the report and the Proposed Conditions. For example, Proposed Condition 61 lists 6,000 and 1,500 l of diesel proposed for Area 1, underground and aboveground respectively, which is not included in Table 3.1 of this report.

T&T Waihi North Project - Exploratory works within the Coromandel Forest Park, February 2025

5. As per above, there are errors and inconsistencies in Tables 6.2 and 6.3.

Statement of Evidence by Rob Van de Munckhof

6. The SoE by Rob Van de Munckhof (attributed in the footer of the document to Rose Turnwald) of 20 February 2025 states that the Tonkin&Taylor Technical Reports provide an accurate ‘description of the environment, the actual and potential effects of the WNP, and the recommended actions to manage those effects’. He further confirms his view on the proposed conditions at the time being appropriate.
7. I agree that the Technical Reports are more descriptions than risk assessments. I also note that conditions as proposed in February 2025 were minimal and have been substantially amended and added to, including in July 2025. These are discussed further below.

Summary

8. It is noted that the authors of the T&T technical reports essentially do not recommend any conditions but refer to controls of the HSNO and workplace safety legislation which are not part of the Fast-track Approvals regime.
9. It is further noted that any hazardous substances to be used and stored for the construction of new facilities associated with the Processing Plant, Water Treatment Plant, Waste Disposal Area and Willows Road/Wharekirauponga have not been addressed or assessed.
10. While noting the inconsistencies in the reporting on the application (discussed above), the outcome, in respect of the suitable management of the effects of hazardous substances is appropriate with regard to the proposed conditions, subject to the amendments recommended. Related to this, I consider the relative remoteness of the hazardous facilities associated with this application to be advantageous in relation to the public health and safety risks.

Proposed Conditions

11. The Proposed Conditions HDC includes in Condition 58A requirements of other legislation not subject to this consent application. This matter should not be a condition but could be an advice note to new Condition 58B, if considered necessary, such as follows:

58–A Advice note: The minimum containment requirements for relevant hazardous substances in accordance with the Health and Safety at Work (Hazardous Substance) 2017 Regulations (HSW-HS) or the Environmental Protection Authority’s Hazardous Substances (Hazardous Property Controls) Notice 2017 (‘EPA Notice’), or any subsequent version of these documents (in which case the latest document prevails), apply regardless.

12. The Proposed Conditions HDC includes in Condition 61 various quantities of hazardous substances in Area 6. Condition 62 does not include Area 6 in the Hazardous Substances Management Plan to be certified by HDC. This omission is to be addressed (as it is in the advice note below the condition).
13. The Proposed Combined WRC/HDC Condition C5 m. lists the Hazardous Substances Management Plan as being applicable to Areas 1, 2 and 5 only. The omission of Area 6 requires correction.

14. Effective management of hazardous substances is reliant on good Hazardous Substances Management Plan(s). It is acknowledged that details of exact locations and storage/management methods, including site plans, have not been finalised at this stage. The certification process proposed is therefore crucial and will provide the opportunity for relevant requirements to be addressed.
15. Subject to the comments above, the Proposed Conditions HDC with regard to the management of hazardous substances are supported.

Limitations

16. This memorandum was prepared on the basis of documentation provided by the applicant through the Hauraki District Council, their planning consultant or the EPA website. There is no liability accepted for the accuracy of information provided. I have not confirmed whether all quantities (or volumes, as the case may be) of hazardous substances are accurate and are consistent between the technical reports and the Proposed Conditions – some inconsistencies have been identified in items 2. and 4. above. I have not undertaken a site visit which would be appropriate at a time when a Hazardous Substance Management Plan provides details of on-site storage locations and methods.

N Schaffoener
Environmental Risk Management Adviser
resources consulting

8 August 2025

Technical memorandum for proposed Waihi North Project: Social

To: Leigh Robcke, Senior Project Planner, Hauraki District Council

CC: Craig McGarr, Director, Bentley and Co

From: Robert Quigley, Director, Quigley and Watts Ltd

Date: 15 August 2025

1. Introduction

- 1.1. This memorandum responds to the assessment of the potential social effects of the Waihi North Project and where necessary, conditions to address potential effects.
- 1.2. My name is Robert Quigley. I am a social and health consultant and Director of Quigley and Watts Ltd.
- 1.3. I have the following qualifications:
 - a. Bachelor of Science (University of Otago)
 - b. Bachelor of Consumer and Applied Science (University of Otago) and
 - c. Post Graduate Diploma in Dietetics (University of Otago).
- 1.4. For the past 21 years my work has been as Director of Quigley and Watts Ltd, a social and health research consulting company. My career has focused on bringing research evidence into decision-making processes. As a social and health researcher I have undertaken over 65 social and health impact assessments, largely in New Zealand and Australia. Some examples relevant to these proceedings include:
 - a. a social impact assessment for the 3000-place Waikeria Prison expansion, Waikato District (2017), principally impacting on housing of nearby small towns (from the construction and operational workforces);
 - b. the monitoring of social effects arising from the Auckland South Corrections Facility (2015 to 2018) (a Board of Inquiry condition) on housing, education and crime in the surrounding community;
 - c. the monitoring of social effects arising from the Waikeria Prison expansion on access to housing and housing affordability on nearby townships (2018 onwards) (an Environment Court condition);
 - d. the social effects of a new township in Ohinewai (2019/20) with particular regard to employment and housing (Evidence to Proposed Waikato District Plan planning process);

- e. the social and health effects of Anglo-American mining operations on nearby townships, Queensland, Australia (2021 to 2023) with a particular regard for housing, local businesses, training and employment; and access to health services
 - f. the health effects arising from air emissions from the proposed Los Bronces Mine Integrated Project, Santiago, Chile (2022);
 - g. the social effects of major infrastructure projects for the Northland Economic Development Agency (Northland Inc) with a particular regard about opportunities for training, education and employment arising from infrastructure projects (2023/24);
 - h. the social effects of District Plan changes for Medium Density Residential Zone rule changes in Richmond, Brightwater and Wakefield for Tasman District Council (2024/2025); and
 - i. the social effects of Medium Density Residential Zoning rules in Te Puke for Western Bay of Plenty District Council (2024 and ongoing).
 - j. The social and health effects of several projects and programmes for the Government of South Australia – many on critical issues such regeneration of the city’s housing stock (knocking down 5,000 social houses and rebuilding at density); a transit-oriented development for the suburb of Boden (with a strong focus on affordable and accessible housing); a structure plan for the city of Marion (demolishing eight city blocks and re-developing); a health plan to mitigate lead exposure from the Port Pirie Lead Smelter (the smelter was at risk of closure if the plan was not approved by both the Government and community).
- 1.5. I also regularly act for councils and Central Government reviewing applicants’ social impact assessments including for direct referrals and resource consents, including most recently for:
- a. the social effects of the proposed Martha Mineral Zone Plan Change (Proposed Plan Change 6) for the Hauraki District Council (2024);
 - b. the social effects of the resource consents for Project Quattro and the Waihi North Mine; for Hauraki District Council (2022 to 2024, both preceding the current Fast Track Application);
 - c. multiple road or rail projects in Auckland, acting on behalf of Auckland Council (Notices of Requirements, Resource Consent applications), typically involving potential impacts on local businesses and housing; and
 - d. over 20 social impact assessments for Waka Kotahi.
- 1.6. Following my reviews of social impact assessments prepared for Waka Kotahi, Waka Kotahi wished to improve social impact assessment practice in New Zealand. They contracted me to develop and lead the writing of Waka Kotahi’s Social Impact Assessment Guideline.
- 1.7. I am also the lead author on the International Association of Impact Assessment’s inaugural set of guidelines on Health Impact Assessment.
- 1.8. I deliver an annual lecture to post-graduate students at the University of Otago on the topic of health impact assessment and social impact assessment. I teach an annual, one-day course at the University of Otago Summer School on the topic of health impact assessment and social

impact assessment, the most recent in February 2025. In mid-2024 I taught a webinar to doctors at the Royal College of Public Health Medicine on the topic of health and social impact assessment. In 2019, I developed and taught the WHO Master Class on health impact assessment delivered in Adelaide Australia to representatives from 32 different countries.

1.9. I am a member of the Environment Institute of Australia and New Zealand.

2. CODE OF CONDUCT

- 2.1. Although the present hearing is not before the Environment Court, I confirm that I have read the Code of Conduct for Expert Witnesses contained in the Environment Court Practice Note 2023 and that I agree to comply with it. I confirm that I have considered all material facts that I am aware of that might alter or detract from the opinions that I express, and that this evidence is within my area of expertise, except where I state that I am relying on the evidence of another person.
- 2.2. The Fast Track Approval application was lodged on 5 March 2025, and included the following documents:
- a. Social impact assessment: Waihi North Project (version 3), dated 26 February 2025
 - b. Waihi North Project – Proposed conditions for the Hauraki District Council land use consents. The most recent version reviewed for this technical memorandum is version 3.0 (dated 28 July 2025).

3. Potential social effects - Businesses, education, training and employment

- 3.1. The SIA lodged in support of the Waihi North application identifies several potential social effects pre- and post-mitigation related to businesses, education, training and employment. Notable examples include:
- a. Job security and sustained livelihoods (**extreme positive**, no mitigation/further promotion proposed)
 - b. Social upliftment from increased business activity and indirect employment opportunities (**High positive**, no mitigation/further promotion proposed)
 - c. Social upliftment from reduced local employment (moderate positive, increasing to **high positive** after mitigation/further promotion).
- 3.2. In my opinion, there is a very low likelihood of the positive effects occurring to these degrees. Put simply, after decades of mining activity in Waihi, the town's social and economic measures are poor. I do not see how more of the same (from this current project) will lead to extreme positive and high positive outcomes for the community. For example, as the SIA shows (Section 3.4.3), unemployment is higher than the national average in Waihi, whereas the 'local area (30km radius including five townships)' is lower than the national average. There appear to be benefits to the wider 'local area,' but not to Waihi town. Similar data exists for youth not in employment, education or training (Section 3.4.3); and for the NZ Deprivation Index (Section 3.4.1). This demonstrates that Waihi town has not seen extreme positive or high positive employment or social upliftment arising from past mining. Achieving a change in these social measures in a way which is attributable to the activity would require a change in approach by the applicant regarding employment or training, which has not been proposed.

- 3.3. The SIA identifies several important effects arising in respect of employment and training that are not reflected/addressed in the proposed conditions, nor are they reflected by the applicant's approach to proposing to provide for employment and training in response to the social effects identified. These include:
- a. *Limited employment opportunities in the district that has cultural, social and financial poverty. Mine expansion will improve locally based training and employment opportunities and community upliftment. Support systems will be required to move people into the employment opportunities connected (Waihi Community Resource Centre, Page 30 of SIA).*
 - b. *The Hauraki District has a very low unemployment rate, and a very high NEET rate. This indicates that to some extent labour will need to come from elsewhere. The age distribution is skewed towards older, except the Māori population which skews towards younger people. This indicates that the provision of at least some labour could come from that population. Training opportunities and apprenticeships could be focused on young Māori given the demographic profile of the community (Waikato Regional Council, page 31 of SIA).*
 - c. *Council has various programmes underway to encourage young people into employment who currently are not supported by MSD. MSD providing employer support for apprenticeships with local businesses in the manufacturing and primary sectors. Valley Education runs programmes to develop work ready skills and help place people in employment. WINTEC is keen to be involved in programmes. Council would like to see more jobs for iwi (Hauraki District Council, page 32 of SIA).*
 - d. *Increased job opportunities were considered positive but there are barriers to uptake as suitable skills providers will need to come into the District or be more active in the community. Educational support will be needed. Pastoral support has to be very regular to overcome challenges on intergenerational unemployment, and drug and alcohol abuse or lack of motivation (Work and Income, page 32 of SIA).*
 - e. *Thames Coromandel District has low unemployment rates, lower than the national average. Securing labour is a challenge (Thames Coromandel District Council, page 31 of SIA).*
- 3.4. A strategic approach regarding purpose, relationships, process and monitoring is lacking, especially for the conditions related to business activity, employment and training (Conditions 93-99; 107c.i,ii,vii, xi.). To address this, the focus of my feedback has considered the proposed consent conditions, with the aim of increasing the likelihood of achieving the proposed uplift in positive effects; and a decrease in potential negative impacts regarding potential housing effects.
- 4. Potential social effects – workforce accommodation and impact on housing**
- 4.1. The SIA identifies a potential social effect regarding an Increased demand for housing (high negative, reducing to **medium negative** after mitigation). This assessment appears appropriate.
 - 4.2. It is informed by a Workforce Accommodation Assessment (Appendix to the SIA). This assessment has used another less than helpful "local area," comprising of a 60-minute commute time. As such the "local" workforce is determined by workforce capacity in Tauranga and ten other townships; and the "local" accommodation is similarly broad. There is nothing wrong with

that as one area for study, but the town of Waihi is the location most at risk of experiencing a high negative effect on housing, and what is missing is an assessment about what might happen in Waihi town regarding its temporary accommodation, short term rental, or house purchasing.

- 4.3. There will be a Fly-In Fly-Out (FIFO) workforce in the early years of the project. Section 2.4 of the SIA describes the workforce build up (stage one) will include: "WUG Development Contractors." These contractors will be composed of offshore staff: 55 per year in year two, rising to 135 per year in year eight. The Workforce Accommodation Assessment (Appendix E of the SIA) outlines specific social effects e.g., the need for accommodation villages, greater pressure on short-term accommodation and a shortfall of accommodation. Mental health of the workforce, accident risk arising from end-of-shift driving, and use of local medical facilities for accidents and prescription needs, etc., are not considered in any depth. FIFO workers and any consequent social effects are not discussed in the main chapters of the SIA.
- 4.4. Therefore, it is probable the Waihi North project's high negative impact on housing is underestimated.
- 4.5. Despite the identification of the potential for a high negative effect, and there being no consideration of the potential impact on the township of Waihi, the SIA recommends (on the basis that there is sufficient housing and workforce within the "local area") continued use of "local" accommodation for years 2-4, with:
 - a. OGNZL workers to make use of long-term accommodation available within the local area
 - b. Contractors to be housed in hotels and motels within the study area, with transport provided, for a maximum continuous stay of 6 months.
- 4.6. As such, the risk of a high negative effect occurring in the town of Waihi remains as the Local area is an area within a 60-minute drive and includes ten townships and the city of Tauranga. It does not consider Waihi township alone, or a 30km radius alone.
- 4.7. The SIA's Workforce Accommodation Assessment concludes a "shortfall of accommodation to meet the requirements during years 5-8 is anticipated" (SIA, Appendix E, page 23) and says within the recommendations section:
 - a. There needs to be a high level of collaboration between OGNZL and Council regarding opportunities to increase housing availability in the local area to respond to the workforce accommodation demand.
 - b. In the absence of an increased availability of long-term accommodation during Year 5 to 8, the following options would need to be considered:
 - i. Accommodation to be built to house contractor staff, which could be released into the private market after the project is completed.
 - ii. Temporary worker camps to be developed to house contractor staff.
 - c. An assessment of the availability of long-term accommodation (private rentals and properties to purchase) must commence 18 months prior to the start of Year 5. This assessment would include an evaluation of capacity available to meet the workforce accommodation demands of Years 5 to 8 and explore opportunities to address potential shortfalls.

- 4.8. These potential effects, or the recommendations, are not translated into proposed conditions of consent, and it is unclear how another accommodation assessment (proposed in consent conditions) might mitigate a high negative impact on housing outcomes. Currently, there are no proposed conditions requiring an assessment of accommodation capacity that otherwise reflect the recommendations of the SIA, especially the findings of the Workforce Accommodation Assessment (in the Appendix of the SIA).
- 4.9. Furthermore, the timing of the workforce accommodation assessment proposed in the consent conditions would occur just prior to the identified effect occurring (18 months prior to the start of year 5), leaving little to no time to make any meaningful change in available accommodation given how long it takes to provide housing in New Zealand. This is not “regular monitoring undertaken to inform future workforce planning” as recommended by the SIA.
- 4.10. The SIA does not address, and neither are there any conditions around transport of workers, when road traffic accidents are a known and foreseeable risk related to FIFO and shift workers who drive to and from their accommodation. For example, in work I have done for Australian mining companies, any distance driven by a mine worker at the end of a night shift is considered a high risk activity. This is because Australian companies collect road traffic crash data and it shows an unacceptable rate of miners being involved in accidents when driving short and/or long distances after shift work.

5. My assessment of the consent conditions

- 5.1. To achieve the outcomes projected by the SIA, there are two main options:
- a. Set appropriate measurable goals and work out how they are to be achieved. OGNZL has not proposed this route.
 - b. Set out a process for improving outcomes. Track those outcomes via monitoring/reporting to check achievement or not. This is the route OGNZL has proposed. However, the process outlined in the proposed consent conditions lacks clarity, including what outcomes OGNZL is hoping will be achieved, or how those outcomes will be monitored/reported. Also, the monitoring and reporting proposed is insufficiently regular, explicit or directive.
- 5.2. I have made recommendations to improve the language of the conditions overall and to amend them to achieve the outcomes projected by the SIA. My recommendations will also facilitate the positive effects to occur to the level projected, and mitigate high negative effects (for example for housing).

Skills Development and Training Action Plan: Rationale and recommendations to the consent conditions

- 5.3. If the positive outcomes regarding employment projected by the SIA are to be achieved, the consent conditions need to be effective. To be effective, the conditions need appropriate processes, timeframes, identified resources and a strategic approach to partnerships.

Discussion	Recommended consent condition
Appropriate process. 5.4. Given the complexity of the existing context, the challenge of creating new training pathways, the feedback from important stakeholders, greater consideration of how the process would occur is required. I recommend the conditions include: a. a group of stakeholders who are invited to meet regularly and work in partnership to develop the plan, monitor and report. b. the capacity for smaller working groups as required 5.5. I do not recommend a requirement for the Consent Holder to contribute to the costs of participation for any party invited to be a partner in the Waihi Skills Development and Training Action Group.	93. The Consent Holder must establish, <u>implement and monitor</u> a Waihi Skills Development and Training Action Plan <u>a. The Consent Holder must invite stakeholders (as per Condition 96c) to work in partnership as the Waihi Skills Development and Training Action Group. The Group shall determine the frequency of meetings, and any working groups if required, and how it will meet the requirements set out within Conditions 94-99.</u>
5.6. Appropriate timing and stakeholders. Regarding timing, the Waihi Skills Development and Training Action Plan needs to relate to the <i>Project Staging</i> of workforce numbers, years 1-18¹. 5.7. Continuation of the action plan beyond three years is required, especially given the project is expected to run for eighteen years. 5.8. Sufficient timing is required to develop relationships, and begin delivering the action plan <u>before</u> the jobs are needed, and <u>throughout</u> the project. Ideally work on the Action Plan would already be underway due to the lead in time needed to train/educate. However, the applicant is proposing the Action Plan is certified 18 months after construction begins, meaning there will be little to no effect on education, training and employment for several years. I recommend the Action Plan is available for certification six months after commencement of this consent. 5.9. Also, the development of quality partnerships takes time: To understand who within each organisation should be involved; The role requested of each organisation, and any development required to fill holes in the provision or scale up of capacity. For example, some organisations can provide access to young people soon to be seeking work (e.g.,	94. The Waihi Skills Development and Training Action Plan referred to in Condition 92 must be submitted for certification under Condition C5 of Schedule 1 no later than ~~18~~ <u>six</u> months after the commencement of this consent. <u>The plan must be updated annually, with special consideration of WUG Development (from year three) and OGC operations (from year nine)</u>³ 96c. Collaboration required with secondary and tertiary education providers, relevant transitional industry training organisations, iwi/hapū entities, <u>local employers and suppliers</u>, and with relevant government <u>and local government</u> agencies to facilitate targeted training for secondary school students and currently unemployed persons to develop skill sets that will enable them to enhance the local workforce servicing the Waihi mining activities (directly and indirectly through suppliers). 96e A detailed programme of activity which identifies how and when opportunities for local skills development and training for the <u>duration of the project</u> ~~first 3 years following the~~

¹ SIA, Page 6

³ SIA, page 5, Figure 2-2, Proposed WNP Workforce

schools), are training institutions (e.g., polytechnics), have access to people needing employment (e.g., Ministry of Social Development), have existing programmes (e.g., Mayors Taskforce for Jobs), or provide social support to newly employed people to ensure they keep the job (e.g., iwi). Most of these organisations hold multiple roles and working together effectively means OGNZL needs to negotiate already complex relationships and programmes. 5.10. Taking another example, if new training courses are required to be provided by the polytechnic, these cannot be 'turned on' without necessary planning and time. 5.11. In the proposed condition 96c, there is consideration of who should be involved. Hauraki District Council and its Mayor's Taskforce for Jobs² are not included. Employers are also absent. Inclusion of small and large local businesses is required because the Action Plan must not only directly inform OGNZL actions, but also inform/support local businesses which supply labour and services. 5.12. For education and training to actually deliver, the applicant needs to be working on it, frequently. For example, the Dunedin Hospital rebuild had a person solely responsible for workforce development, working full time: Identifying gaps as they arose and being the liaison person with secondary schools/polytechnics, trainers, MSD and recruiters to fill gaps with local people. It was a constant role and focus, with formal six monthly meetings with stakeholders and an annual update of the plan to set a formal framework for the relationships. The applicant will need much more frequent contact in-between these meetings to provide work for Waihi people.	~~commencement of activities authorised by this consent are likely to be offered and implemented.~~
Appropriate outcomes 5.13. Potential positive social impacts referenced in the SIA were <i>job security and sustained livelihoods and social upliftment</i> for the community. These are broad, life-altering social outcomes. To shift the dial on/achieve these outcomes, a commensurate set of consent conditions is required. In contrast, the objectives of the Waihi Skills Development and Training Action Plan are weak: <i>to enhance local skills; and to increase local workforce participation</i>. 5.14. The overall goal of the Action Plan needs to match the impacts identified in the SIA. I recommend amendment, such as <i>stimulating the local economy</i> to achieve this. Being the largest employer in Waihi, OGNZL has an outsized role in influencing the local economy. Together with Hauraki District Council, the two organisations can seek to develop and align procurement practices to achieve the broader outcomes identified in the lodged SIA, of which local employment is critical. Such work is occurring internationally as demonstrated by the highly successful Preston Model⁴, with many features becoming commonplace in New Zealand settings.	95. The objectives of the Waihi Skills Development and Training Action Plan are <u>to work in partnership with the Waihi Skills Development and Training Action Group</u> to: a. <u>support small Waihi businesses to upskill their staff and improve processes so that small local businesses are able to meet OGNZL's procurement and operational requirements</u> b. <u>enhance local skills of Waihi individuals;</u> and c. <u>increase local Waihi workforce participation</u> d. <u>stimulate the local economy.</u> 96. The Waihi Skills Development and Training Action Plan must include, but need not be limited to:

² Consent condition 95

⁴ <https://www.preston.gov.uk/article/1339/What-is-Preston-Model>

5.15. Furthermore, within the Action Plan, consideration of how small local businesses need to be <u>supported</u> is required. For example, to meet the threshold of OGNZL's procurement practices to be able to bid on a contract/provide services, small local businesses might need assistance with health and safety compliance, appropriate policies and procedures; understanding insurance needs, bid writing, networking opportunities, etc. There is far more to providing skills and services to a large company like OGNZL beyond just having a skilled person available. As such I recommend "<i>support small Waihi businesses to upskill their staff and improve processes so that small local businesses are able to meet OGNZL's procurement and operational requirements</i>" be an objective. For other large projects I have worked on, e.g., the Dunedin Hospital rebuild, and work I've done in Northland with Amotai Limited for supporting small Māori businesses, it is common for small local businesses to have poor skills and processes for these topics. For example, they may have basic processes and procedures for some aspects, but little for other aspects; and if they do, they may not be doing it to the level/quality required by OGNZL. Hence it becomes a barrier to providing staff/services. It is also a relatively easy fix with some guidance/support by OGNZL. 5.16. The social goals are substantial and to see a change in these, I recommend a focus on Waihi town first, and the surrounding towns (30km radius) second. This will also help to address the imbalance in employment and deprivation statistics for Waihi town versus the 'local area' of 30km radius. 5.17. To enable the outcomes above, consent condition 96 requires additional actions. 5.18. Collaboration is critical, as is supporting people in their first six to 12 months of employment, as noted by stakeholders in the SIA. This is because for some people entering the labour force, arising from opportunities provided by the skills development and action plan, this may well be their first job; or they could be coming from homes where no one else is employed. In those situations, consideration of social supports within other New Zealand settings has been shown to be very helpful to keeping those people employed. 5.19. While brochures and after-hours networking meetings are helpful, the applicant needs to build on these initial steps / provision of information. Providing education/information is not usually effective at getting changes in behaviour (by the small businesses), without some additional supports. For example, if in those after-hours meetings (or a follow up meeting) the applicant could also provide targeted advice on what each small business lacks, and build in a structured annual review process, the applicant would be creating a strategic process to address potential gaps.	a. Preparation of a skills matrix that identifies workplace requirements and skills needed by the Consent Holder and its suppliers in relation to mining activities in and around Waihi; b. Identification of work areas where the skills identified pursuant to (a) are in short supply; c. Collaboration undertaken with secondary and tertiary education providers, relevant transitional industry training organisations iwi/hapu entities, <u>local businesses and suppliers</u>, and with relevant government and <u>local government</u> agencies to <u>develop a clear pathway for individuals to prepare/train for the upcoming project, and</u> facilitate targeted training for secondary students, <u>and</u> currently unemployed persons <u>and others</u> to develop skill sets, <u>micro-credentials and certificates</u> that will enable them to <u>contribute to enhance</u> the local workforce servicing the Waihi mining activities (directly and indirectly through suppliers); d. <u>For people gaining employment via the Waihi Skills Development and Training Action Plan, identify what social support may be required within the first 6-12 months of employment, and who will deliver those.</u> ~~de.~~ Identification of work experience opportunities ~~for trainees and tertiary students for people~~ who meet the Consent Holder's employment and health and safety requirements; ~~ef.~~ A detailed programme of activity which identifies how and when opportunities for local skills development and training for the <u>first 3 years project's duration</u> following the commencement of activities authorised by this consent are likely to be offered and implemented; <u>g. A programme of activity which identifies how and when local businesses will be supported to build capacity to bid for contract</u>

	<u>work/services, achieve necessary certification, create capability statements, and facilitate networking.</u> fh. Measurable and time bound performance targets and associated monitoring, including specific indicators of tangata whenua participation <u>and achievements</u>, for determining Plan effectiveness; and gi. The reporting and review process for the Plan.
5.21. Appropriate reporting. The proposed conditions wrap reporting into an existing SIMP process. However, given the importance of the outcomes sought and the partnership work being undertaken, consent conditions more in line with the applicant's draft consent conditions are appropriate. 5.22. I have suggested annual reporting to encourage the applicant to be continuously working and updating their Skills Development and Training Action Plan. Jobs for Waihi people are the most significant social contribution from this project (which is being claimed within the SIA). I have recommended this annual report is separated from the two-yearly SIMP to provide a clearer focus on these education, training and employment outcomes.	99. <u>The Consent Holder must provide an annual report to the Hauraki District Council 12 months after provision of the Waihi Skills Development and Training Action Plan under Condition 92, and annually thereafter, which reports on:</u> ~~The Consent Holder must incorporate the objectives and performance indicators associated with the Waihi Skills Development and Training Action Plan into the Social Impact Management Plan required by Condition 103 and in report performance against them in the monitoring report required by Condition 107.~~ a. <u>The development, activities, limitations and achievements of the Waihi Skills Development and Training Action Group.</u> b. <u>Determination of the effectiveness of the Waihi Skill Development and Training Action Plan with respect to the objectives and performance indicators;</u> a-c. <u>The making of recommendations to further enhance the Waihi Skills Development and Training Action Plan.</u>
5.23. Appropriate evaluation of effectiveness. Evaluation of the Action Plan by professionals independent of the company and existing service providers is required.	<u>Every three years, the Consent Holder must undertake a process, impact and outcome evaluation of the Waihi Skills Development and Training Action Plan, independent of the company and existing service providers to determine what is working well, less well, and make recommendations for change.</u>

Workforce Accommodation Assessment: Rationale and recommendations to strengthen the consent conditions

5.24. The Waihi North project is projecting a high negative impact on demand for housing, reducing to medium negative after mitigation. In the Waihi North project's SIA, the potential impact of Fly-In Fly-Out contractors on short term and rental housing was not considered within the main chapters of the SIA. This means the SIA's high negative impact on housing may be underestimated.

5.25. To be effective, changes to the consent conditions pertaining to the workforce accommodation assessment (and hence any potential impact on demand for housing) are detailed below.

Discussion	Recommended consent condition
Appropriate consideration of potential effects. 5.26. The requirement for certification within six months of granting this consent is to enable housing related interventions beforehand (if required), rather than after the fact. The first Workforce Accommodation Assessment (in Appendix E of the SIA) is incomplete, having not assessed the potential impact on Waihi town, or the area within a 30km radius. 5.27. Under the applicant's proposed conditions, a workforce accommodation assessment would occur only twice before mine closure, and once more six months prior to closure. Over an 18 year project, this leaves a lot of potential for effects to go unaddressed, especially given a high negative impact (which is a potential underestimate). Such sparse assessments provide two 'points in time,' but are not adequate for <u>monitoring</u>, or for <u>managing</u> the impact (as per Condition 102.d.i.). I recommend an assessment and report every two years.	100. The Consent Holder must submit a Workforce Accommodation Assessment for certification under Condition C5 of Schedule One <u>within six months of granting of this consent and every two years following at least six months prior to commencement of each of the following:</u> <u>a. Mine development and production; and</u> <u>b. Mine remediation and closure activities.</u>
Appropriate objectives 5.28. The objectives of the proposed consent conditions (Condition 101) for the Workforce Accommodation Assessment do not explicitly require the applicant to assess actual effects (at the time of the assessment) <u>and</u> the projected effects (at peak workforce requirements). In the future, the applicant will be able to collect bespoke data to assess the actual (current) impact on capacity and availability; and they'll be able to use that data to project future peak impact (and check back to see if their past predictions were accurate or not). The Workforce Accommodation Assessment in Appendix E of the SIA was not able to do such work, but it will be able to be carried out in future assessments. Over the course of the project, the applicant will be able to track/show impact, and how capacity and availability has moved up and down over time. That helps them in their future projections of peak/future impact. Both are required to fully understand potential impacts (in the future) and actual impacts (cumulative over time, in the past) on housing. This requirement ties in with an assessment every two years, to truly <u>monitor</u> actual and potential impacts. A similar consent condition has been applied in the Waikeria Prison Development to monitor the impact of construction and operational workforces over time. For the Waikeria Prison Development, housing and housing affordability assessments occur every six months. 5.29. Furthermore, workforce accommodation has a direct relationship to road traffic accidents as miners travel to and from their accommodation. Such impacts are foreseeable and can be	101. The objectives of the Workforce Accommodation Assessment are to: <u>a. assess actual effects and future effects on availability and capacity of:</u> i. <u>Emergency accommodation;</u> ii. <u>Temporary accommodation e.g., motels;</u> iii. <u>Homes to buy;</u> ~~iii.~~ <u>iv. Rental affordability, with a particular need to consider low-income people.</u> <u>ba. analyse local accommodation supply in relation to workforce demand, including Fly-In Fly-Out workers; and,</u> <u>c analyse company policies, procedures and practices that contribute to safe worker travel</u> <u>d. assess the risk of road traffic accidents for workers travelling to/from their day-to-day accommodation at the end of their shift, and for their start/end-of rotation travel back to their distant home.</u>

prevented/reduced with good policies, procedures and practices. Assessment will ensure these potential impacts are managed as well as practicable. 5.30. The WUG Development Contractors (Years 3-8) are Fly-In Fly-Out workers⁵, and should be accounted for. The accommodation requirements of such workers are quite different from a typical workforce, meaning that a projection of actual and future effects is particularly useful.	~~d~~b. reduce as far as practicable the extent to which the activities authorised by this consent contribute to any local accommodation shortages <u>e. reduce as far as practicable the extent to which the activities authorised by this consent contribute to road traffic accidents by mine workers travelling to/from their day-to-day accommodation at the end of their shift, and for their start/end-of rotation travel back to their distant home.</u>
Appropriate consideration of local effects, and current/future effects. 5.31. The potential impact on Waihi housing will not be able to be determined from the proposed consent conditions. OGNZL's definition of local is within 60 minute drive time of the mine, which includes the city of Tauranga, and ten other townships. Many of these places are not in the same Region. This is a good example how the language of 'local' in the application is confusing and does not represent or allow understanding of the potential effects on the township of Waihi. This is an ongoing issue, where historic data on Waihi town is not reported by OGNZL via their existing Social Impact Management Plan. Therefore, the true 'local' impact on Waihi cannot be understood or appropriately addressed. This is particularly concerning given the poor social statistics of Waihi town versus the wider 'local area.' I recommend analysis of the Workforce Accommodation Assessment by Waihi town, 30km radius, <u>and</u> 60-minute commute. 5.32. The Workforce Accommodation Assessment will draw on historic and current data to project <u>potential effects on housing in the future</u>. Subsequent reports can do the same, but they can also report on <u>actual effects</u> on housing availability and capacity using data collected over time. 5.33. The proposed consent conditions do not include consideration of the known and foreseeable risk of road traffic accidents arising from mine workers driving to/from their day to day accommodation, or their start/end-of rotation. Appropriate consent conditions are proposed. 5.34. The proposed consent conditions (Condition 102) do not provide an overall consideration of the significance of the data which would be typical when assessing past and future housing effects. A framework based on the significance matrix in the SIA would be sufficient, and allow the applicant to determine the overall past/actual impact, and projected/future impact. Consequently, I recommend <i>"and the significance of the contribution to any housing accommodation impacts"</i> be added to Condition 102c.	102. The Workforce Accommodation Assessment must include, as a minimum: a. Analysis of <u>actual availability, and future of the availability and capacity</u> of housing and accommodation in the local area and within the <u>township of Waihi, a 30km radius, and 60-minute commute area;</u> b. An analysis of <u>actual requirements, and future</u> workforce requirements for the activities authorised by this consent and any projected population changes attributable to those activities, including an estimate of <u>the number of workers and their households who may live in, or move into, the local area and within the township of Waihi, a 30km radius, and 60-minute commute area;</u> c. An assessment of the <u>actual capacity and future</u> accommodation capacity in the local area and within the <u>township of Waihi, 30km radius, and 60-minute commute area to accommodate the workforce, including the long and short term housing market and seasonal impacts, and the significance of the contribution to any housing impacts;</u> and d. <u>An assessment of company policies, procedures, and travel to work options for their contribution to safe travelling to/from their day-to-day accommodation at the end of their shift, and for their start/end-of rotation travel back to their distant home</u> e. <u>An assessment of the risk of road traffic accidents for workers travelling to/from their day-to-day accommodation at the end of their shift, and for their start/end-of rotation travel back to their distant home.</u> ~~e~~e. Based on the outcomes of (c, d and e), measures to be implemented over the life of the project to:

⁵ Page 7, SIA

	i. manage the impact of the project workforce on local accommodation <u>and road traffic accidents</u>; and ii. ensure there is sufficient accommodation to support the workforce requirements <u>and achieve a low significance of effect on accommodation and road traffic accidents.</u> e. The monitoring, reporting and review process for the Plan over the life of the project. For the purpose of this condition, the ~~local~~ areas <u>to be assessed include the township of Waihi, a 30km radius, and 60-minute commute area</u> ~~mean the areas annexed to these conditions in Attachment 3.~~
5.35. The medium negative impact on demand for housing (after mitigation) requires comprehensive reporting to properly <u>monitor and report on</u> actual and potential impacts.	~~103. The Consent Holder must incorporate the measures and monitoring requirements from Condition 101 (d) and (e) into the Social Impact Management Plan required by Condition 103.~~ <u>The Consent Holder must provide a report to the Hauraki District Council 6 months after certification of the Workforce Accommodation Assessment under Condition 99, and two yearly thereafter, which reports on:</u> <u>a. The development, results, activities, limitations and achievements of the Workforce Accommodation Assessment;</u> <u>b. The effectiveness of the Workforce Accommodation Assessment with respect to the objectives and performance indicators;</u> <u>a-c. Any recommendations to amend the parameter of the Workforce Accommodation Assessment, while maintaining its objectives.</u>
5.36. Despite the Workforce Accommodation Assessment and Skills Development and Training Action Plan having their own reports, it remains useful to have a framework that considers the activities authorised by this consent, together with the mining projects undertaken by the Consent Holder in the area on the community. 5.37. The consent conditions list what is required in the SIMP, and they need to be amended to reflect the changes requested above.	107. The Social Impact Management Plan must: a. Be prepared by a suitably qualified social impact specialist; b. Be based on best practice guidelines and procedures for social impact assessment; and c. <u>Describes the quality and frequency of collaboration undertaken with stakeholders and community, especially for Waihi skills development and training, and workforce accommodation.</u>

	e.d. Include a set of indicators covering the drivers and outcomes of potential social effects attributable to mining activities authorised as part of this consent in combination with the other mining projects undertaken by the Consent Holder in Waihi <u>township, a 30km radius, and 60-minute commute</u>, including as appropriate: i. <u>Business-level activities undertaken to support small Waihi businesses to upskill their staff, improve processes and bid for work;</u> ii. <u>Individual skill development and training activities undertaken to support local employment, but especially from the township of Waihi;</u> iii. <u>Social support delivered for people gaining employment via the Waihi Skills Development and Training Action Plan, including effectiveness of those people remaining employed.</u> ~~iv.~~ Numbers employed in the mine operations, including direct employees and contractors (“workers”), and the level of Māori participation in employment; v. <u>Location of mine workers prior to employment, and location of mine workers after accepting employment residing locally, regionally and beyond;</u> ~~vi.~~ Workers’ housing (rental vs owner occupied, new builds and existing houses); ~~vii.~~ Location and number of OGNZL owned houses in Waihi <u>township</u> and breakdown between employee / contractor renters and public renters of said properties; ~~iv.viii.~~ Changes in housing market ~~using publicly available data – emergency accommodation, temporary accommodation,~~ house and rent prices <u>and affordability (especially lower quartile)</u> and relationship to mine operations, including variations or trends in property sales and enquiries; ix. ~~Local housing~~ <u>Housing and accommodation capacity (current and</u>

	<u>future</u>) and the ability to address workforce accommodation requirements, <u>for all workers and including for Fly-In Fly-Out workforce</u>; ~~v-x.~~ <u>Detailed information on road traffic accidents involving mine workers</u> ~~vi-xi.~~ <u>The effectiveness of the Waihi Skills Development and Training Action Plan in increasing ~~local~~ workforce participation;</u> ~~vii-xii.~~ <u>The relationship of mine operations to any impacts on local services (i.e., education, health community groups, sports groups);</u> ~~viii-xiii.~~ <u>The relationship of mine operations to any impacts on emergency services (i.e., fire, civil defence, ambulance);</u> ~~ix-xiv.~~ <u>Changes in participation of voluntary and recreational groups;</u> ~~x-xv.~~ <u>Changes in local business activity arising from mining activity;</u> ~~xi-xvi.~~ <u>Take up of the Consent Holder's property purchases and top up policy;</u> ~~xii-xvii.~~ <u>_____ Distribution and use of the Amenity Effect Programme; and</u> Any complaints and associated information received by the Consent Holder and the response to those complaints.

6. Conclusion

- 6.1. Overall, the SIA identifies several potential social effects. Notable examples relate to housing and to employment. Positive effects on social uplift of the community are a potential, and will only be realised with firm/measurable consent conditions. Negative effects on housing appear to be underestimated and amended conditions are recommended to address this prospect and to achieve an acceptable outcome.
- 6.2. The recommendations that I have made are necessary, relative to the effectiveness of conditions related to the Skills Development and Training Action Plan, and the Workforce Accommodation Assessment.



Robert Quigley, Director, Quigley and Watts Ltd.

Memo

To: Leigh Robcke

From: Peter Fuller

Subject: Waihi North Fast Track Application – Geotechnical Review

Date: 4th August 2025

INTRODUCTION

Following receipt of the Waihi North Fast Track Application and Proposed Consent Conditions (WNFTA), the Hauraki District Council (HDC) requested that I, Dr Peter Fuller from Dalmour Pty Ltd review and assess that Application relating to surface settlement and stability, and the geotechnical aspects of access tunnels and the open pit and underground mines.

I have an Engineering Degree and Doctorate in Materials Engineering and worked as a research engineer on geotechnical aspects of mining (1973 – 1980) and since 1980 as a consulting engineer in the mining industry in areas of geotechnical input to mine design, mine stability assessment and ground control in mining. I have previously advised the HDC on ground stability following the Barry Road collapse and Applications for the Martha East Layback, mining of the Trio deposit, and mining in the Golden Link project area (Area L) which was later reduced in size to become the Correnso Extended Project Area (CEPA). I have also been involved in the review of the SUPA Application, the original MDDP Application, the Alternative Drive MDDP Application, the Project Martha Application, and the Martha Mineral Zone Proposed Plan Change 6 Application. Since 2001, I have provided on-going technical advice to the HDC on ground stability and surface settlement resulting from mining in all deposits in the Waihi area.

I confirm that I have read the Code of Conduct for Expert Witnesses contained in the Environment Court Practice Note 2023 and I agree to comply with it. I confirm that I have considered all the material facts that I am aware of that might alter or detract from the opinions that I express, and that this statement is within my area of expertise.

INVOLVEMENT TO DATE

I have reviewed the following information relating to geotechnical aspects of the WNFTA:

- PSM Report: Appendix B.12 _ Gladstone Pit Geotechnical Assessment
- WSP Report: Appendix B.11 _ Geotechnical Assessment WUG
- EGL Report: Appendix B.13 _ Ground Settlement

- PSM Report: Appendix B. 10 _ Willows Boxcut Design

I have also reviewed the following parts of the Substantive Application Report:

- A.04 Introduction
- A.05 Project Description
- A.09 Assessment of effects
- A.12 Conclusion

Prior to the release of the fast track application technical reports, I reviewed draft versions of each and where considered appropriate, I requested further information and clarification of some technical aspects. In most cases, the responses included rewording/amendments to the final reports provided as part of the WNFTA.

I have also reviewed the proposed draft conditions dated 28 July 2025 in relation to my areas of expertise, comprising:

- The HDC Conditions; and
- The Combined HDC and WRC Conditions.

ASSESSMENT

Gladstone Pit Geotechnical Assessment

Even though the Gladstone pit is relatively shallow, it has been designed to a very high standard and PSM's report outlines the considerable amount of work done to firm up the geology and structure of the site, the geotechnical properties of the various units and how these are likely to change with depth. However, a lack of data exists within the NW sector, and this is proposed to be addressed with a pragmatic approach during construction involving 'Hold and Evaluate' phases. If necessary, the pit wall design would then be altered and incorporated into the subsequent pit excavation. The PSM report (B.12 part 1, page 33) refers to a Ground Control Management Plan (GCMP) that must be formulated for the pit, prior to mining. The parameters of this are stated to be;

The GCMP should include:

1. A detailed staged pit development plan to allow the rock mass conditions, geological structure and geology to be confirmed before commitment to final pit crest and overall design slopes. The plan should include hold points for the slope designs to be reassessed and confirmed.
2. A comprehensive piezometer network around the pit, established before mining commences to measure groundwater levels and pore pressures.
3. The characteristics of faults and shears, particularly the continuity.
4. The Unconfined Compressive Strengths and shear strengths of the young volcanic units and the Andesite Class 4.
5. Confirming Andesite Class 3 shear strengths.
6. Stability conditions around problem areas in the underground and the appropriate remediation treatments during mining.
7. Planning for a comprehensive horizontal drain program in the pit.
8. Horizontal grading of the berms (that is inclined berms) in the upper flatter sections of slope to direct rainfall runoff and any shallow seepage away from lower slopes.

No condition is proposed that reflects this recommendation, and therefore I recommend additional HDC conditions below, which are appropriate.

Pit stability is predicted to be affected by groundwater and a network of piezometers is proposed to be installed prior to the commencement of mining (Condition C45 b.). Given the relatively shallow pit and flat wall angles, it is unlikely that wall movement will need to be monitored but the groundwater monitoring and any effect that may have on ground settlement can be addressed as part of a monitoring plan proposed to be included within consent conditions (Conditions C44, C45 and C46).

There are old underground workings in the Moonlight Mine in close proximity to the proposed pit wall (refer longitudinal section N-2 located 10m NE of section N in Fig. 5). The 3D model in Appendix R showing the final excavated pit shape and backfilled Moonlight underground workings shows that pit wall stability is unlikely to be influenced by those workings provided care is taken with blasting of pit walls in the near vicinity.

None of the above are considered to be issues of concern and consent conditions are framed to provide the necessary requirements for the pit to be excavated and subsequently backfilled with tailings without jeopardising the stability of either the pit or the surrounding area. Recommended conditions to address this are set out below.

Geotechnical Assessment WUG

WSP's report covers preliminary assessments of the tunnel development out to the ore zone and the current mine design, based on the resource defined by current drilling. Initial tunnelling from the Willows portal to ventilation shaft 1 is identified as being a challenge with weak and variable ground conditions and likely water inflows being anticipated. It is predicted that this can be managed with a combination of resin injection and ground control methods currently used in the Martha Mine. I agree with that finding. Proposed Conditions C44 and C45 are suitable in this regard.

The Preliminary Economic Assessment (PEA) completed by the Applicant indicates that the underground mining method will be a combination of Longhole Open Stopping (LHOS) with cemented rock fill (CRF) and Modified Avoca and that mining will involve a bottom-up sequence.

The upper level of the veins defined by current drilling is indicated to be at least approximately 100m below the surface and as a result, a relatively thick crown pillar will be formed between the uppermost stopes and the surface. Elastic 3D modelling of the current mine plan and crown pillar predicts that no severe stress damage is likely to occur in the pillar. However, this type of model (which is appropriate for the currently available geological and geotechnical data) cannot provide any reliable prediction of deformation of the surface due to stoping. Once the mine plan is finalised, additional more detailed 3D modelling will be required as a check on the stability of the final crown pillar geometry, and will provide a prediction of its deformation due to mining. This is addressed as part of the proposed HDC Conditions recommended below covering Underground and Surface Stability.

The overall length and depth dimensions of the orebody remain unknown and as a result WSP highlight that refinement of the mine plan is likely once further information becomes available. It is also stated

that: “A key consideration in mine design will be to avoid surface disruption.....” and I agree with that statement. Given the preliminary level of the current assessment, it is my view that some mining related consent conditions are required to ensure that any surface disruption due to mining is measured and that mining stopes without backfill is to be avoided in future mine planning. These are recommended below.

Overall though, the level of geotechnical assessment that has been conducted is appropriate given the amount of geological and geotechnical data that is currently available. None of the matters discussed above are of concern and appropriate consent conditions involving movement monitoring of rock at the surface are recommended (below) to ensure that regional stability due to tunnel development and surface stability of the crown pillar above stopes will be maintained. Given what I expect to be a relatively thick final design crown pillar, I am not expecting there to be any detectable movement of its upper surface.

Ground Settlement

EGL’s report provides predicted surface settlement resulting from dewatering due to tunnel development, underground mining and mining of the Gladstone Pit. Predictions are based on experience where geology and topography are similar to the Waihi area and on modelling where that is not the case. Definition of some material properties in the modelling has relied on work of other consultants involved with geology and geotechnical aspects of the overall site (which is appropriate).

In my review of EGL’s initial draft report, I raised the following matters as requiring clarification:

- It is noted in section 6.1.1 relating to predicted settlement around the Gladstone open pit (GOP) that the Young’s Modulus E assumed for “softer rocks typical of the younger volcanics” was 2000 MPa which is approximately 10 times PSM’s test results (in Table 10.3 of their report) for class 3 Andesite. Also, the E value selected for Ignimbrite is about 5 times that of PSM’s Andesite test result. Is it therefore likely that these apparent over-estimates of Modulus values would have substantially changed the predicted settlement around the GOP and if so, to what extent?
- Are there any test results to support the Young’s Modulus value of 8,400 MPa selected for the slightly to unweathered Andesite?
- In section 6.1.3 relating to the ore transport tunnel decline it is noted that grouting is a mitigation measure. Would this involve forming a continuous grout curtain around the tunnel during construction and is the rock mass likely to be sufficiently permeable to allow grout uptake? Has this been successfully used in mining for this purpose?
- If a concrete lining was required to mitigate against long term dewatering of the shallow groundwater system above the ore transport tunnel, is it likely that a shotcrete lining of say 100mm thickness would suffice?
- Is it intended that the mitigation actions to limit groundwater inflow in critical areas (in terms of surface settlement) are to be part of one or more TARPs to manage this issue?

These matters have not been specifically addressed in the final report lodged. However, I assume that the effect of a Modulus reduction will mean a proportionate increase in predicted settlement and I do not regard this as an issue.

Preservation of water levels in the surface groundwater system is seen as a priority by EGL, but it is only the initial approximately 100m section of the Willows tunnel that will intersect the Tuff/Ignimbrite layer where care will be required to limit the potential drainage of the surface groundwater system. It is noted that the Access tunnel, regardless of the final alignment, remains in Andesite well below the surface layer and provided its intersections with two fault zones can be properly sealed, drainage of the surface groundwater system should be minimal. Recent experience with mining the upper levels of the Rex vein in the Martha underground mine has shown that resin injection is effective in creating a grout curtain so this potential issue can be effectively managed. Existing piezometers installed from the surface together with additional new ones will provide sufficient monitoring points to ensure that surface groundwater levels can be maintained.

A series of mitigation measures including Trigger Action Response Plans (TARPS) has been recommended by EGL as controls against excessive surface groundwater level reduction and consequent localised settlement and these are all considered to be appropriate. These are encompassed in consent condition C45 d. and there are unlikely to be any issues with groundwater management as it affects settlement.

EGL have concluded that some monitoring above the underground mining area is necessary, and that can involve surveys of the levels of ventilation shafts and exploration drillhole collars. I agree that this would provide a reasonable overall coverage of the Area 1 (Appendix C.02) mining area, but this is not included within the proposed Combined HDC and WRC Consent Conditions dated 28th July 2025. I recommend a consent condition to address this (below).

Willows Boxcut Design

The preliminary design of the boxcut for access to form the portal for the Willows tunnel is assessed by PSM as not presenting any geotechnical challenges that cannot be addressed in the final design. Given its location and PSM's knowledge of the geotechnical conditions expected, that conclusion is considered reasonable and appropriate and does not require any further consent conditions relating to its final design and excavation.

PROPOSED CONDITIONS

HDC Conditions

In the current version of HDC Conditions dated 28th July 2025, there are no consent conditions relating to either local or regional stability within Area 1 that have been proposed by the Applicant. In my opinion as expressed above, that needs to be addressed, and an additional Condition is required with the recommended wording as follows:

UNDERGROUND AND SURFACE STABILITY

Prior to the commencement of stoping, detailed 3D modelling of the final underground mine (WUG) stoping plan shall be conducted to assess the predicted stability of the final crown pillar geometry and provide a prediction of deformation of its surface due to mining. Results are to be provided to the HDC for verification.

Underground stoping in the underground mine (WUG) within Area 1 shall be conducted to ensure ground surface stability is maintained. This shall include at least the following measures:

- a. Mining methods shall be restricted to those that require all stope voids created or enlarged to be backfilled on completion.
- b. All surface drillholes passing directly above stopes shall be fully grouted before stoping commences.

For the surface directly above stoping, before the commencement of stoping, a satellite scan of the surface topography is to be undertaken at the highest available resolution. Thereafter, scans of the same area are to be undertaken at least every two (2) years.

Once stoping commences, a report shall be provided to the Council every two (2) years thereafter to include but not be limited to:

- a. The cumulative stope void volume and the cumulative volume of backfill placed in stope voids.
- b. Results from satellite scans presented as contours of cumulative differential surface movement above the stoping area.

A Ground Control Management Plan is required to manage various aspects of the design, construction and operation of the Gladstone Open Pit (GOP). Recommended additional Conditions are detailed below:

GLADSTONE OPEN PIT GROUND CONTROL MANAGEMENT PLAN

Prior to the commencement of GOP mining, the Consent Holder must submit a Ground Control Management Plan (GCMP) for the Gladstone Open Pit for certification under Condition C5.

Certification is required to verify that the GCMP:

- a. Include actions and methods as appropriate to meet the Purpose below; and
- b. Addresses the Actions required below.

Purpose

- a. To further define and confirm geotechnical properties of materials, structures and groundwater conditions
- b. To identify areas of pit walls with potential stability issues, and
- c. To define potential remedial treatments for those areas.

Actions required

The Ground Control Management Plan shall include at least the following measures:

- a. A detailed staged pit development plan to allow rock mass conditions, geological structures and geology to be confirmed before committing to the final pit crest position and specifications of overall pit slopes.
- b. A series of hold points to reassess and confirm slope designs.

- c. A network of installed piezometers must be in place around the pit before mining commences to measure groundwater levels and pore water pressures.
- d. Definition of fault and shear characteristics and continuity.
- e. Confirmation of strength characteristics of pit wall materials.
- f. A plan of horizontal drain holes around the pit wall.
- g. Details of horizontal grading of benches to direct rainfall runoff.
- h. Stability conditions in areas of potential slope instability and proposed remediation treatment measures to be applied to those during mining.

Combined HDC and WRC Conditions

Proposed consent conditions relating to dewatering and settlement are included in sections C.43 to C.46 of the Combined HDC and WRC Conditions dated 28th July 2025. Provided the matter of surface stability above stoping can be addressed with the inclusion of above additional condition as part of the HDC Conditions, I agree with the proposed wording in Conditions C.44 to C.46 but recommend that Area 1 be added to Condition C43 as follows:

C43	The Consent Holder must submit a Dewatering and Settlement Monitoring Plan for each of Area 1, Area 2, Area 3 and Area 5 for certification under Condition C5. Certification is required to verify that the Dewatering and Settlement Monitoring Plan: c. Includes actions, methods, monitoring programmes and trigger levels as appropriate to meet the objectives in Condition C44; and d. Satisfies the requirements in Condition C45. <i>Advice note: Dewatering and Settlement Monitoring Plans may be submitted for each Area separately or multiple Areas combined. Dewatering and Settlement Monitoring Plans must be certified by Hauraki District Council and Waikato Regional Council.</i>

This addition is needed to allow the surface levels above the mining area to be monitored as recommended by EGL.

Further to this, it is my opinion that as part of Condition C45 b., specific boreholes and ventilation shafts in Area 1 need to be listed as markers but these would not need to be surveyed at least every 6 months as required by Condition C45 c, with Condition C45 c. amended (below) to exempt those markers from that timing and require them to be initially surveyed at least 6 months before the commencement of mining and at least annually thereafter.

C45	The Dewatering and Settlement Monitoring Plan must include, as a minimum for each Area:

	a. Detail a programme to monitor and assess the effects of the activities on land settlement and the groundwater hydraulic regime; b. Details of settlement monitoring markers and piezometers to be established for the Area in accordance with the EGL Ground Settlement Report (including those specific markers for Area 1) and submitted with the application documents (reference WAI-985-000-REP-LC-0050, application doc B.13); c. Detail the requirement monitor ground settlement at a minimum of six monthly intervals; and for Area 1, to be initially monitored at least 6 months before the commencement of mining and at least annually thereafter, and d. A Trigger - Action Response Plan (TARP) for the Area, which sets out trigger levels and management responses to be used if groundwater or surface settlement trigger levels are exceeded.

Provided the above changes to both HDC Conditions and Combined HDC and WRC Conditions are included, I am confident that overall surface stability across Areas 1,2,3 and 5 will be able to be maintained.



Dr Peter Fuller

Mine Geotechnical Consultant F AusIMM

Limray Pty Ltd T/A Blastotechnology

5 Curlew Street, Toowong, QLD, 4066 Australia

M +61 438 378 170 E Cameron@Blastotechnology.com

Memorandum

To: Leigh Robcke, Craig McGarr

From: Cameron McKenzie

Subject: Waihi North Project – Review of Heilig & Partners Blasting and Vibration Assessment

INTRODUCTION

Dr Cameron McKenzie of Blastotechnology was requested to review the Blasting and Vibration Assessment report prepared by Heilig & Partners on behalf of Oceana Gold (New Zealand) for the Waihi North Project (WNP) at Wharekirauponga.

I hold Engineering Degrees and a Doctorate of Mining Engineering (1986) obtained from analysis of vibrations, both synthetically-induced and from mine blasting. Since 1988 I have worked in the international mining, quarrying, and construction industries as a consultant in the areas of blast optimisation, including control of environmental impacts, damage to surrounding rock masses, and the blast vibration-induced potential for damage to sensitive and heritage structures. I have previously reviewed, for the HDC, many blasting-related assessments prepared by Heilig and Partners for Martha Mine, Favona, Correnso, Trio, Quattro, SUPA, MEP, MDDP1, MDDP2, and MP6.

I confirm that I have read the Code of Conduct for Expert Witnesses contained in the Environment Court Practice Note 2023 and I agree to comply with it. I confirm that I have considered all the material facts that I am aware of that might alter or detract from the opinions that I express, and that this statement is within my area of expertise.

DOCUMENTS REVIEWED

The primary document for review is the report by Heilig & Partners labelled B.53-Heilig-Blasting-and-Vibration-Assessment.pdf, but additional documents that I have reviewed include:

1. A.10-Substantive-Application-Report-Management-and-Monitoring-of-Environmental-Effects.pdf
2. B.39 - Bioresearches - Native Frog Effects Assessment.pdf
3. B.41-Lloyds-Archey's-Frog-Population.pdf
4. B.42_Lloyd's_Hochstetter's Frogs Survey.pdf
5. B.58-Lloyd's-Frog-Monitoring-Plan.pdf
6. D.03-Hauraki-District-Council-Proposed-Conditions.pdf
7. G.16-Statement-of-Evidence-Heilig-and-Partners-Pty-Ltd-John-Heilig.pdf
8. H.07-Vibration-Management-Plan.pdf (Oceana Gold, dated February 2025)
9. Draft Alliance Ecology Memo HDC Waihi North 11 August 2025

I have also reviewed, relative to my expertise, the proposed draft conditions dated 28 July 2025, comprising:

- The HDC Conditions; and
- The Combined HDC and WRC Conditions.

SUMMARY OF WAIHI NORTH PROJECT

The blasting activities of WNP are well summarised in section 3.5 of the document H.07 Vibration Management Plan (VMP) prepared by Oceana Gold. The primary components of the VMP include:

1. Wharekirauponga UnderGround mine (WUG) involving all underground blasting
2. Access tunnels from a portal at the Willows Surface Facilities Area (SFA), extending over 6.5 km to the WUG plus a dual access tunnel to the orebody, involving all underground blasting with the exception of the Willows Portal (tunnel entrance).
3. A five kilometre-long tunnel connecting the dual access tunnel to the existing processing plant SFA involving all underground blasting
4. Three borrow areas (western, central and eastern) required to produce material for the initial stages of construction of the Tailings Storage Facility (TSF3), involving surface blasting
5. The Gladstone Open Pit (GOP) as a new pit to the west of, and adjacent to, the existing processing plant, involving surface blasting.

The report by Heilig & Partners (H&P Report) has addressed the expected impacts for each of the above components, and includes an assessment of the vibration, overpressure, flyrock, and blasting fume (generally referred to as NOx) impacts. The following sections present Blastotechnology's assessment of the Heilig & Partners' (H&P) report as they apply to the five components summarised above.

MATTERS OF AGREEMENT – H&P REPORT

Section 2 of the H&P report confirms the above five blasting impact components, though in a different order to the above.

WUG Underground Blasting

Section 4 of the H&P report identifies Native Frogs as being fauna of interest, to which consideration must be given to methods of minimising ground vibration effects. The report identifies (section 6.3) a maximum vector-sum vibration level of 15 mm/s, at the 95th percentile (i.e. 95% of impacts will be less than 15 mm/s), as an appropriate limit.

The Bioreserches report identifies that this limit is not likely to cause harm to, or significantly affect the activities of, frog populations in the affected area around WUG. Blastotechnology relies on this assessment, together with the complementary review of this assessment on behalf of Hauraki District Council by Alliance Ecology.

I also consider that the level of 15 mm/s as a 95 percentile level for a short-duration disturbance, is an achievable and reasonable limit, especially considering that frog populations will also be monitored as part of Oceana Gold's Key Management and Monitoring Measures for the WNP (Table 7-1, A.10-Substantive Application Report Management and Monitoring of Environmental Effects.pdf).

The H&P report details a methodology for monitoring surface vibration levels arising from underground blasting, which involves the use of underground-based vibration sensors coupled with a well-established procedure to extrapolate and predict surface vibration levels (section 21.3) This avoids the need to disturb and locate monitors within the surrounding natural environment. I concur that this approach is appropriate.

Figure 15 of section 11.5 of the H&P report presents blast design options, or mitigation measures, in case the vibration impacts from any WUG blasting are greater than expected based on historical mining experience around the township of Waihi. I concur that the design options presented in Figure 15 are appropriate, practical, and will be effective in achieving vibration reductions should they be required.

Section 6.4 of the H&P report identifies the existing swing bridge located along the Wharekirauponga Walking Track as being within the area potentially affected by WUG blast vibrations. I concur that, due to the modernity and type of the structure, a vibration limit of 100 mm/s is reasonable.

Also identified are some old mine workings (adits and shafts) which will not be any closer to the WUG blasting operations than similar structures were to the Favona and Trio mining. Those structures are reported to have been monitored during the Favona and Trio monitoring and no mining-related impact on their integrity has been observed. I concur that it is therefore unlikely that these workings (in Wharekirauponga) will be adversely affected by blasting in WUG.

The H&P report also identifies a short-length tunnel that forms part of the Wharekirauponga Walking Track, understood to be under the control of the Department of Conservation, and states only that modelling suggests that WUG blasting will not impact on the overall tunnel integrity. It does not mention the maximum expected vibration levels at this structure, other than to state in Section 12 that vibration levels at all surface locations will be controlled to not exceed 15 mm/s. I am advised that the section of the walking track on which the tunnel is located is “currently legally closed for Kauri Dieback mitigation”, suggesting that the closure, while current, may not be permanent. I have examined a photograph taken inside the tunnel, shown below. The photograph reveals a structure with loose rock on both the walls and the crown (roof), and with what appears to be recently-fallen rock fragments along the floor. The structure does not appear to have any support such as rock bolts, pins, mesh or other lining. In the second-last paragraph of Section 6.6 of the H&P report, I note the comment “the level of vibration at the old workings may be capable of dislodging loosely or precariously positioned rocks”. The tunnel condition meets, in my opinion, the above description, meaning that blast-induced vibrations from WUG may be capable of causing a rock fall and inflicting injury or alarm on a trail-walker. In discussions with the HDC geotechnical expert, Dr Peter Fuller, I am advised that *“since the tunnel is so close to the surface that there is no stabilizing stress arching possible and the roof stability relies on rock interlocking which can be disrupted by vibration from any source. There’s no way of monitoring the tunnel and any entry even from a geotechnical engineer should be forbidden.”* I am therefore dubious about dismissing the potential effects of blast-induced vibrations on the safety of people using the tunnel at any stage after the commencement of WUG blasting.



With regard to the Archey's frog population and all heritage structures in the potentially-affected area around WUG, Blastotechnology agrees with the proposed vibration limits, assessment of likely blast vibration levels and effects, methods of monitoring to demonstrate compliance with the proposed vibration limits, and possible mitigation measures, associated with WUG blasting.

Access Tunnels (Willows Portal to WUG, and Processing Plant SFA to Willows SFA)

Blastotechnology agrees with the H&P report, section 8.2, that it is appropriate to monitor blasting impacts from the underground, small-scale tunnel blasting, and agrees that the impact levels will be generally low, and will not be concentrated in any one location for extended periods, since the tunnel progression from beginning to end will be continuous and as rapid as possible. There will be none of the larger-scale, higher-impact production blasting associated with these tunnels. It is therefore also agreed that the conditions pertaining to averaging and separate reporting of development and production blasting in the underground mining in Favona, Correnso, Trio, Slevin, where blasting tends to remain relatively stationary for extended periods, are neither appropriate nor necessary for the proposed tunnels. Blastotechnology agrees with the proposed conditions including:

- The level of vibration for all blasts events must be monitored at non-company owned residences, and the peak level of vibration at any location must comply at the 95th percentile with 5mm/s between the hours of 7am to 8pm, Monday to Saturday, excluding public holidays (Condition 28 a i.).
- The 95-percentile with 1 mm/s will apply for all blast events at all other times (Condition 28 a ii.).

- The limitation on the blast duration of underground development blast events to 12 seconds (Condition 28b).

Blastotechnology also agrees that:

1. where applicable, existing permanent monitoring systems around the southern end of the tunnels should be used to monitor vibration levels (H&P report, Section 8.2),
2. the use of existing Favona and Correnso monitoring locations will be limited to only a small portion at the southern end of the total blasting operations (H&P report, Section 8.2),
3. the use of roving monitors is appropriate once blasting is outside the range of coverage of the Favona and Correnso monitors (H&P report, Section 8.2),
4. monitoring is not required for the dual access tunnels due to the large separation distances from sensitive receivers and the short periods of possible disturbance due to the continuous advance of the tunnel faces (H&P report, Section 8.3).

Section 8.2 of the H&P report proposes the following conditions:

- The level of vibration for all blasts events must be monitored at non-company owned residences, and the peak level of vibration at any location must comply at the 95th percentile with 5mm/s between the hours of 7am to 8pm, Monday to Saturday, excluding public holidays.
- The 95-percentile with 1 mm/s will apply for all blast events at all other times.
- The percentile calculation is based upon all recorded vibration data that exceeds the pre-set threshold level set in the Vibration Management Plan.

These are suitably encapsulated in the Proposed HDC Conditions, and are considered suitable and sufficient to manage the effects of all underground tunnel blasting for the WUG Access Tunnels.

Borrow Pits and Gladstone Open Pit

There appears to be some contradiction between the proposed conditions in the H&P report and the OGNZL proposed conditions in relation to firing times for the borrow pits and GOP, with the H&P report proposing (Section 8.1) 7 am to 6 pm, and the Oceana document proposing 0700 to 2000 (Condition 28). The matter of appropriate firing times is discussed in more detail in the section titled Matters of Disagreement.

Blastotechnology agrees that:

1. the mitigation methods identified in Section 20 of the H&P report are appropriate and practical if the actual impact levels are significantly higher than the levels expected from historical monitoring of Oceana Gold's surface and underground mining operations,
2. the monitoring of impacts will, at least initially and until shown to be insufficient, utilise existing permanent monitor locations,
3. additional monitors, connected to the existing monitoring system, may be required at new and representative locations to record blasting impacts from blasts in the three borrow pits, with recorded levels required to meet the vibration and overpressure conditions.

With the exception of the contradictions in blasting times, these have been suitably carried forward to appropriate consent conditions.

Fume and Flyrock

Blastechnology notes Section 6.4 of the Vibration Management Plan (VMP) refers to Blast Fumes, and considers the matter to be of high importance. While Blastechnology agrees that the use of explosive formulations designed to reduce the risk of fumes is one mitigative step, the absence of a monitoring programme in the proposed VMP is considered an oversight. Video recording of every blast is a cheap and simple way to monitor the generation of fume and to demonstrate effective management. It is recommended that a new paragraph be included in Section 6.4.1 of the VMP to address Fume Monitoring by use of video cameras, for example:

Fume generation will be monitored for every blast in the Borrow Pits and GOP using either a ground-based or drone video camera, with cameras recording for a period of at least 30 seconds after the firing of the last blasthole in the pattern. A fume rating will then be applied to each blast according to the guidelines in the Australian Explosives Industry Safety Group (AEISG) Code of Practice "Prevention and Management of Blast Generated NOx Gases in Surface Blasting", dated August 2011.

Blastechnology notes Section 6.5 referring to flyrock, and also considers the matter to be of high importance.

In my opinion the matters of Fume and Flyrock are not suitable to be addressed in the Vibration Management Plan, since neither bears any relation to vibration impacts. In my opinion, it would be better to rename the VMP to the Blast Management Plan (BMP) which addresses the topics of vibration, overpressure, flyrock, and fume in separate, numbered sections.

In my opinion, the proposed conditions of consent are not sufficient to manage the effects of blasting in GOP and the three borrow pits. Suggested amendments to Conditions 26, 28 and 29 are presented in the Summary at the end of this report.

MATTERS OF DISAGREEMENT – H&P REPORT AND PROPOSED CONDITIONS

GOP Blasting Times

The H&P report proposes in Section 2.1 that blasting be permitted in GOP and the Borrow Pits between the hours of 07:00 and 18:00. These hours align with the HDC District Plan, Section 8.3.2 Vibration in the Ground, paragraph 8.3.2.3 2(b), but differ from those which apply to the historical Martha Open Pit hours understood to be 10:00 to 15:00, and also differ from the OGNZL Proposed Conditions document, Condition 28a(i) which proposes 07:00 to 20:00. GOP and associated borrow pit blasting will occur multiple times per week, with the H&P report suggesting 1 to 2 times per week for the borrow pits, and with no reference to blasting frequency within GOP. It seems entirely possible that blasting in one or more of the borrow pits and GOP will be a daily occurrence.

In my opinion it does not seem appropriate to have different blasting times for different surface blasting operations, and differently affected sensitive receivers, all within the Waihi community. In the interest of standardisation, and to avoid a perception of different standards for different sections of the Waihi community, the blasting times for GOP and the borrow pits should align with those of the Martha Pit. Suggested amendments to Condition 28 are presented in the Summary at the end of this report.

Overpressure Monitoring

The H&P report states in section 22 that "periodic monitoring is proposed for blasting at the GOP and borrow pits". In the last paragraph of section 8.1, the report proposes "Overpressure

is to be representatively assessed at a minimum of once per quarter”, and section 6.3 of the VMP proposes the same frequency of overpressure monitoring. In Section 22, the H&P report proposes “At six-monthly intervals during the initial, upper-level blasting at these sites monitoring the level of overpressure will be completed at the closest permanent vibration monitoring station”.

Conditions 28d and 29c of D.03 HDC Conditions 28 July both state “*The maximum overpressure must not be greater than 120 dBL for any blast*”.

Compliance with the overpressure limit in Conditions 28 and 29 cannot be demonstrated “for any blast” if only a handful of measurements are made annually. While the H&P report states “*Given the low levels of overpressure that have been recorded and the demonstrated compliance with the limit ...*”, no such data or compliance has been included in the H&P report.

It is well known that variability in peak overpressure levels is considerably greater than that for ground vibration levels, at least in part due to the greater number of factors influencing overpressure outcomes, including wind speed and direction, direction of initiation, orientation of the blast with respect to receivers, and stemming retention, all of which can be expected to vary from blast to blast. For this reason, the proposal to monitor only a few times per year “to be representative of any blasting event to occur onsite”, is not an appropriate compliance-monitoring approach for overpressure, any more than it would be for ground vibration.

Since both ground vibration and airblast overpressure cause shaking and vibration inside a house, and since it is impossible for any residential occupant to distinguish between the cause of the two separate effects, if indeed they are even separated in time, it is inappropriate to ignore either one of the impacts in a monitoring programme.

It is therefore important that overpressure monitoring be extended beyond the scope proposed in the H&P report, and also that the 7th bullet-point in Section 4 of the Vibration Monitoring Plan (H.07 - Vibration Management Plan.pdf) be modified to include overpressure monitoring of every surface blast (GOP and the borrow pits) as well as ground vibration monitoring. Further, the risk of overpressure non-compliance should be included in the Risk Assessment of Appendix G of the VMP.

In the opinion of Blastotechnology, the monitoring of peak overpressure levels is an integral part of all commercial blasting monitoring instrumentation, and is undertaken at all mining and quarrying operations where environmental blasting impacts are required to be monitored. It is, in Blastotechnology’s experience, an integral part of blast monitoring systems, and the Conditions for blasting in GOP and the borrow pits should include the requirement for measurement of ground vibration and overpressure for every blast fired in the GOP and the three borrow pits, irrespective of the blasting elevation with the pits. Suggested amendments to Condition 29 are presented in the Summary at the end of this report.

Monitoring and Reporting of Flyrock

Condition 33 of the OGNL D.03 HDC Conditions refers to a requirement for a Risk Assessment associated with potential flyrock from blasting in GOP and the borrow pits.

While the Martha Pit was operated for several decades with only a single flyrock incident of major concern, the potential for a serious and possibly fatal accident is always present, but also usually follows a series of precursor warnings. The risk of a serious accident can be significantly reduced if every blast is reviewed, by video analysis, and reported in terms of the percentage of holes from which collar ejections occur, or detectable free-face fragments which are projected beyond the limit of bulk rock movement. Monitoring and reporting of ground

response for ALL blasts, in terms of gas venting and rock ejections, increases accountability and safety of blasting operations, and is easily conducted from video records.

It is recommended that the VMP be expanded to detail the methodology to be deployed to monitor flyrock control, and that the Blast Report for each blast include an assessment of flyrock control and/or gas venting. Suggested amendments to Condition 33 e. are presented in the Summary at the end of this report.

Monitoring and Reporting of Fume

Condition 45 g. requires that the VMP include details of “*measures to monitor, and if necessary, manage, post blast fume generation in GOP or any of the borrow areas*”. The reference to monitoring is considered good and appropriate, though does not stipulate the monitoring requirement for ALL blasts, the monitoring methodology, reporting requirements, or any compliance criteria. The Waihi community, if exposed to thick orange fume emanating from the GOP or borrow pits, will almost certainly be alarmed and concerned about health and respiratory impacts.

The same video record used to monitor flyrock control will also serve for fume control, provided that the video recording continue for at least 30 seconds after the last charge is detonated. A Monitoring and reporting Standard has been detailed in the AEISG Code of Practice and can be easily deployed in all Waihi open pit blasting.

It is recommended that the VMP be expanded to detail the methodology to be deployed to monitor fume appearance, and that the Blast Report for every blast include an AEISG-aligned rating. Suggested amendments to Condition 45 are presented in the Summary at the end of this report.

Type of Structure Requiring Compliance Assessment

Condition 26 in OGNZL D.03 HDC Conditions-28 July describes the type of structures to which the proposed vibration and overpressure limits/conditions apply:

“All blast events must comply with the limits and standards set out in Conditions 28 and 29 as measured at the boundary of any residential, low density residential or town centre zoned site that is lawfully used for residential purposes, or the notional boundary of any lawfully occupied rural dwelling.”

This proposed condition excludes consideration of commercial premises, such as cafes and other similar privately-owned premises used for social congregation. Blasttechnology considers that, in accord with the HDC District Plan Section 8.3.2.3 3(a) paragraph which states “*All measurements shall be taken at or within the boundary of any allotment not owned by the agency responsible for creating the vibration*”, the consideration of amenity affects extends beyond residential structures, and it is recommended that Condition 26 in the 28 July OGNZL Proposed Conditions be adjusted to exactly reflect the wording in the HDC District Plan Section 8.3.2.3 3(a). Suggested amendments to Condition 26 are presented in the Summary at the end of this report

Summary of Recommendations

Proposed Conditions

1. I recommend that Condition 26 be amended to:

All blast events must comply with the limits and standards set out in Conditions 28 and 29 as measured at the boundary of any allotment, or at the notional boundary of rural property, not owned by the agency responsible for creating the vibration

2. I recommend that Condition 28 (a) (i), referring to blasting times for GOP and the borrow pits be amended to align with the conditions of Marth Pit blasting:

For all blasting within Areas 2, 3 and 5 associated with the establishment of access portals and underground tunnels:

- a. *The peak particle velocity (vector sum) at the surface must be no more than:*
- i. 5mm/s for 95% of blast events between the hours of 1000 and 1500, Monday to Friday and 1000 to 1200 Saturday (excluding public holidays); and*
 - ii. 1mm/s for 95% of blast events at all other times*

3. I recommend a new Condition 29 amended as:

For all GOP Blasting within Area 5, and borrow pit blasting at the western borrow pit in Area 6, and the central and eastern borrow pits in Area 7:

- 29 a. *Blast events will occur between the hours of 10:00 and 15:00, Monday to Friday and 1000 to 1200 Saturday (excluding public holidays); and*
- b. *Peak particle velocity and peak overpressure levels will be measured for all blasts according to:*
- (i) The peak particle velocity (vector sum) at any monitor point must be no more than 5mm/s for 95% of blast events; and*
 - (ii) 1mm/s for 95% of blast events at all other times;*
- c. *Peak Compliance with the 95% limit must be determined based on the highest recorded vibration for each blast event measured at any monitor installed in accordance with Condition 42(e); and*
- d. *The peak overpressure level will be monitored for all blasts and will not exceed 120 dBL for any blast.*

4. I recommend that Condition 33 e. be amended to:

Potential risk control measures including but not limited to the monitoring of every blast using video cameras and the rating of collar and free-face venting intensity in the Blast Report for every blast fired in GOP and the borrow pits;

6. I recommend that Condition 45 g. be amended to:

Detail on the conditions which could cause post blast fumes at GOP, the Western Borrow Area, Central Borrow Area, or Eastern Borrow Area, the assessment by video analysis lasting for at least 30 seconds after the last blasthole has fired, and the reporting of fume rating following the AEISG Code of Practice "Prevention and Management of Blast Generated NOx Gases in Surface Blasting", dated (2011) in the Blast Report for every blast fired in GOP and the borrow pits;

Vibration Management Plan

3. I recommend that this document be renamed the Blast Management Plan incorporating as separate sections the matters of blast-induced ground vibration, air overpressure, flyrock, and nitrous oxide fume.
4. I recommend that the Risk Assessment matrix be amended to include the risks associated with high and non-compliant air overpressure levels

Dr Cameron McKenzie

Managing Director, Blastotechnology

Blasting Consultant

20th August 2025

Hauraki District Council
P.O. Box 17,
Paeroa 3640

Attention: Leigh Robcke

Email: leigh.robcke@hauraki-dc.govt.nz

re: - Waihi North Project - Proposed External Lighting Conditions of Consent

Qualifications

1. This report has been prepared by Russ Charles Kern. I hold certificates in Electrical and Illumination Engineering and I am a member of the Illuminating Engineering Society of Australia and New Zealand Limited (MIES) and I'm currently serving on the New Zealand Lighting Society Membership Committee.

I have an extensive background in professional external lighting design, application, and evaluation, with particular expertise in street lighting, floodlighting, and the evaluation of nighttime glare and spill light. Kern Consultants Limited are specialist electrical and illumination engineering consultants of which I am a director.
2. I have worked with clients over the last 40 years to establish their brief and advise solutions for lighting design and evaluation, in particular, exterior lighting for pedestrian areas, residential subdivisions and commercial projects, including assessment of likely effects on the environment. I have worked with Auckland Transport technical lighting staff and various New Zealand Councils to facilitate upgrade recommendations for streets and public reserves throughout New Zealand. I have also provided external lighting designs for facilities such as schools, retirement homes, residential developments, quarries, petrol stations, billboards and other commercial and industrial facilities requiring outdoor lighting.

Expert Summary Statement

3. In the context of this application, which is made under the Fast-track Approvals Act 2024, I have been asked to confirm that the reporting has been prepared in accordance with the Environment Court's Code of Conduct for Expert Witnesses. I confirm that I have read the Environment Court's Code of Conduct for Expert Witnesses, as contained in section 9 of the Environment Court's Practice Note 2023, and I agree to comply with it. The data, information, facts and assumptions that I have considered in forming my opinions are set out in this technical report. The reasons for the opinions expressed are also set out in the technical report.
4. I confirm that the matters addressed in my technical reporting is within my area of expertise, with the exception of where I confirm that I am relying on information provided by another person. I have not omitted to consider material facts known to me that might alter or detract from my opinions expressed. I have specified where my opinion is based on limited or partial information, and I have identified any assumptions I have made in forming my opinions.

Introduction

5. Documentation has been received from Hauraki District Council Planners that was prepared on behalf of Oceania Gold (New Zealand) Limited (OGNZL) as part of their Resource Consent application for the proposed Waihi North Project.
6. The following documents have been received for review:
 - Mitchell Daysh Limited Draft Project Description and AEE Report WAI-985-000-REP-LC-0052.Rev A IFR dated XX November 2021.
 - Pedersen Read Consulting Electrical Engineers external lighting Assessment of Environmental Effects: Lighting Revision F dated 25th February 2025 and numbered WAI-985-000-REP-LC-0019_Rev F.
 - Convener Minute 9 - Panel and Decision timeframes
 - DRAFT Conditions - WRC - Feb 2025
 - OGNZL D.02 Combined HDC and WRC Proposed Conditions - 28 July 2025
 - OGNZL D.03 HDC Proposed Conditions - 28 July 2025
 - Fast-Track Approvals Act 2024 - Minute 1 of The Expert Panel – 28 July 2025
7. Proposed lighting for the Oceania Gold Waihi North Project includes the installation of new and upgrading of some external lighting at Wharekirauponga Surface Facilities Area, Gladstone Open Pit, Northern Rock Stack, Tailing Storage Facility, Waihi Processing Plant and Wastewater Treatment Plant. Lighting will also occur in Area 1 in association with above ground activities occurring in the Coromandel Forest Park (i.e. exploration drill, camp, pump, manned portable rig, geotechnical, pumping test, and vent shaft sites). Obtrusive lighting compliance information was included in the documentation provided by Pedersen Read.

Project Description – Waihi North Project (External Lighting)

8. There are some existing external lighting fixtures at the existing Waihi processing sites that will be upgraded or relocated, and new external lighting will be installed at the new Surface Facility Area (Area 2) as part of this project. In addition, mobile plant will be utilised as part of the development to support construction, and these areas will vary over time in response to construction activities and locations.
9. Pederson Read have indicated that some work sites may require the use of temporary standard vehicle lighting such as head lights or vehicle mounted task lighting. These options will be used in areas such as the norther rock stack, tailing storage facility, and the new Gladstone open pit.
10. There are nearby residential properties located at the end of Willows Road near the above Surface Facility Area (Area 2), namely #111 and #112 Willows Road and OCNZL owned houses at # 132 Willows Road near the area where external lighting is proposed. There are also residential properties located along SH25 near the start of Willows Road and in proximity to the Rock Stack, Tailing Storage Facility and the new Gladstone Open Pit.
11. I visited Waihi on 22nd January 2022 to familiarise myself with the Willows Road area and existing Waihi SFA area and surrounds.

Lighting Design

12. The Pedersen Read draft AEE report provided details of proposed external lighting for each of the above Waihi North Project development locations. All locations are identified in their report. Note that specific lighting design has not been undertaken as part of the assessment, rather the lighting solutions offered are based on those that could reasonably be expected.

13. Pedersen Read documentation states the lighting design criteria used in determining adequacy of proposed external and security lighting as AS/NZS 4282: 2019 in addition to Hauraki District Plan spill light requirements for construction and operational purposes.
14. Pedersen Read documentation states compliance with Hauraki District Plan lighting standard 8.2.5.3 (2) 8 lux spill light limit and AS/NZS 4282 control of obtrusive effects of outdoor lighting guidelines will be achieved for all locations.
15. Pedersen Read documentation clearly outlines the lighting terms and definitions and how they relate to proposed lighting and mitigation measures.
16. External lighting will be provided at the Willows Road Surface Facility Area (SFA), Gladstone Open Pit (GOP), along the existing Waihi conveyor, Processing Facility Crusher, SAG Mill, Northern Rock Stack (NRS) and if required, mobile lighting will be used around the new Tailing Storage Facility Area 3 (TSF3). At times, mobile lighting may also be used in addition to permanent lighting at each of the above locations.
17. The new above ground Willows Road Surface Facility will operate 24/7 and as such there will be external lighting operating all night. The documentation indicates the Surface Facility will be shielded by natural topography and the nearest residential houses on Willows Road will not be affected by the external lighting. I agree with this assessment based on my site visit.
18. Reference is made in the Pederson Read document that the expected effects of lighting from the proposed Willows Road Surface Facility on fauna is low noting that permanent lighting is likely to be of a similar form to that presently installed throughout the existing mining operations.
19. Proposed lighting for the new Gladstone Open Pit, the Northern Rock Stack and Tailings Storage Facility 3 is described in the Pedersen Read Report. It also notes in Sections 3.5.1, 3.6.1 and 3.8.1 that there is very little existing lighting in these areas, however it also identifies that mobile lighting plant would be required if operations are to continue during the hours of darkness. Pederson Read state that temporary lighting would comply with an existing OGNZL standard operating procedure for "Towing and Setting up Lighting Plants". The procedure includes a note "Do not shine towards a public road or buildings". This procedure is not governed by a proposed condition, therefore I recommend that it be incorporated into a proposed Lighting Management Plan which I refer to in Paragraph 24 below.
20. Pedersen Read acknowledge there is potential for an increase in glare and sky glow for those areas that can be seen directly by residents, however this can be mitigated with careful location and orientation of mobile plant lighting in particular since these are the lights that have most potential to create obtrusive effects.
21. Construction lighting will need careful orientation and aiming to ensure neighbouring residential occupants and motorists are not adversely affected.
22. The Pederson Read Report includes recommendations to manage/mitigate obtrusive effects such as uplight, spill light and glare by way of a Lighting Management Plan to be prepared by a suitably qualified and experienced professional which would set out the requirements for all fixed/permanent, mobile and construction artificial lighting to be used as a part of the Waihi North Project. These recommendations have not been fully implemented in relation to the proposed conditions, and I consider that this is appropriate.

Proposed Lighting Conditions

23. Three Proposed Conditions have been prepared for the Waihi North Project that specifically relate to lighting, these being Conditions 52, 53 and 54 and are reproduced below as follows.

Condition 52

Any night lighting established in Areas 2, 4, 5, 6 and 7 must be designed and installed in order that the level of lighting measured at the boundary of any site not owned by the Consent Holder or related company, or

not subject to an agreement with the Consent Holder or related company, is no greater than 8.0 lux. This condition does not apply to any streetlight installed for safety purposes insofar as it causes light spill on a public road.

Condition 53

Where luminaires are visible from external locations or are high output floodlights:

- a. They must be installed such that their light producing faces are horizontal to the ground; or*
- b. Luminaires must be aimed away from external locations, i.e. into the site, or*
- c. They must be of luminous intensity not exceeding the limits set out for the applicable environmental zone in AS/NZS 4282 "Obtrusive effects of outdoor lighting" or any subsequent version (in which case the latter standard prevails).*

Condition 54

Lighting associated with locations within Area 1 must be designed and installed in accordance with the National Light Pollution Guidelines for Wildlife published by the Australian Government's Department of Climate Change, Energy, the Environment and Water, version 2.0, May 2023 or any subsequent version (in which case the latter version prevails).

24. To address the recommendation of the Pederson Read Report, which I concur with, the following additional condition is recommended to ensure that lighting effects on residents and wildlife are avoided or adequately mitigated without compromising health and safety.

At least 20 working days prior to the commencement of activities authorised by this consent, the Consent Holder shall submit a Lighting Management Plan to the Hauraki District Council for certification. The Lighting Management Plan must:

- a. Set out the requirements for all fixed, mobile, and construction artificial lighting to be used, including:
 - (i) Set out the Plan purpose*
 - (ii) Reference to applicable legislation and standards*
 - (iii) Identify key roles and responsibilities*
 - (iv) Requirements for lighting design and installation to balance operational and safety requirements with best practice lighting design in cognisance of Hauraki District Plan requirements, AS/NZS 4282: 2023 "Control of the obtrusive effects of outdoor lighting" and The Australian Government's "National Light Pollution Guidelines for Wildlife"*
 - (v) Plant location and luminaire directions/aiming to minimise spill light and glare effects i.e. aim lights away from dwellings, roadways and sensitive ecological areas.*
 - (vi) Limiting the intensity/output of light fittings.*
 - (vii) Tilt light fittings downward.*
 - (viii) Install light shields where necessary.*
 - (ix) Avoid high points which are visible outside of the Willows Road site.*
 - (x) Install blinds to windows and glass doors where site support facilities (e.g. Portacombs) are to be used after dark.**
- b. Identify how lighting throughout the project will be minimised as far as practicable, so it meets the permitted standards of the relevant zone and effects on the night sky.*
- c. Include the placement and direction of lights to avoid high points which are visible outside of Area 2.*
- d. Identify where light shields should be used where necessary, and all lighting shall be down facing to minimise effects on the night sky*
- e. Identify specific operational requirements*
- f. Include Lighting Audit Requirements and Periodic Review*
- g. Be prepared by a suitably qualified and experienced lighting professional.*

Summary

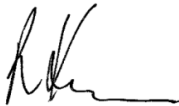
25. The information previously provided by Pedersen Read adequately addressed spill light and glare applicable to the Waihi North Project, adjacent residential properties and their boundaries from proposed external work and security lighting. The Waihi District Plan limit of 8 lux spill light at night will be met at residential boundaries. While specific illuminance calculations have not been presented by Pedersen Read to confirm this, the natural topography shielding from view at Willows Road indicates spill light and glare will not be of concern.
26. I could not determine any gaps in the Pederson Read report applicable to proposed external lighting, The only area where there is potential for concern is the use of mobile plant and associated lighting that is reliant on the operator correctly adjusting floodlights when plant is moved, however a proposed condition relating to a lighting management plan is recommended, which will address this.
27. The proposed conditions outlined in paragraph 23 above (Conditions 52, 53 and 54) and the additional condition in paragraph 24 are suitable and sufficient to control and manage the external lighting generated by the proposed activity.

Conclusion

28. The luminaire selection and orientation if installed as presented in the principles outlined in the draft report will mitigate obtrusive effects at residential boundaries to acceptable limits. Pedersen Read have provided an overview of external lighting effects in their Executive Summary.
29. The external lighting proposed by Pedersen Read is appropriate relative to spill light, and their report adequately addresses adverse effects on the surrounding environment and persons. The proposed lighting conditions referenced in paragraphs 23 and 24 above will provide adequate means for HDC to monitor compliance.

Please give me a call should you need to discuss any aspects of the above report.

Yours faithfully
Kern Consultants Ltd



Russ Kern MIES



ACOUSTIC REVIEW

WAIHI NORTH PROJECT WAIHI

PREPARED FOR
Hauraki District Council

DATE
20 August 2025

Assessment prepared by Styles Group for Hauraki District Council.

REVISION HISTORY

Rev:	Date:	Comment:	Version:	Prepared by:
1	19/08/25		Final Draft	Jon Styles, MASNZ Director and Principal Styles Group
2	20/08/25		Final	

COPYRIGHT

All material in this document including, without limitation, text, images, graphics, layout, intellectual property and any other information (collectively 'content') is subject to copyright and other proprietary rights, including but not limited to, the Copyright Act 1994 (New Zealand) and international copyrights, trademarks or other intellectual property rights and laws. Unless otherwise stated, the content in this document is owned by Styles Group. The content of this document may not be copied in whole or in part without the permission of Styles Group.

Table of contents

1.0	Introduction	2
2.0	Author's statement of experience	2
3.0	Overview	3
4.0	Proposed noise standards applying to the Project	3
4.1	Construction noise	3
4.1.1	Separating construction noise from operational noise	3
4.1.2	Construction noise limits	4
4.1.3	Use of long-term limits as a trigger for additional mitigation	4
4.1.4	Overall view on construction noise limits	5
4.2	Operational noise limits.	6
4.2.1	Cumulative noise effects with other OGNZL activities not part of the WNP6	
5.0	Modelling and prediction of noise levels	8
5.1	Noise modelling methods	8
5.2	Noise modelling uncertainties	8
5.3	Operational noise level predictions	8
5.4	Helicopter noise level predictions	9
6.0	Assessment of noise effects	10
6.1	Ambient noise measurements	10
6.2	Assessment of cumulative noise effects	11
6.3	Road traffic noise	12
6.4	Assessment of helicopter noise effects in the Forest Park	13
6.4.1	Background sound environment	13
6.5	Length of time that an observer might be exposed to Project noise	14
6.6	The noise level of helicopters and other plant	15
6.7	Waikato Conservation Management Strategy	15
6.8	Possible mitigation options	16
7.0	Ecological Assessment	17
8.0	Summary of findings	17

1.0 Introduction

Hauraki District Council (**HDC**) has engaged Styles Group to undertake a technical acoustics review of the substantive application submitted under the Fast-track approvals Act 2024 by Oceana Gold (New Zealand) Limited (the **OGNZL**) for the Waihi North Project (the **Project**).

Our review is focussed on the [Assessment of Noise Effects](#) prepared by Marshall Day Acoustics dated 18 February 2025 (the **MDA Report**).

This review refers to and responds to the set of proposed conditions of consent from OGNZL dated 29 July 2025 for the HDC Land Use Consents.

This review does not comment on blasting or vibration effects that are subject to review by another expert.

2.0 Author's statement of experience

I am and have been the Director and Principal of Styles Group Acoustics and Vibration Consultants for over 20 years. I am and have been a Council Member of the Acoustical Society of New Zealand (ASNZ) for 17 years. I am a full Member of the ASNZ. I am on the Board of Directors of the Australasian Association of Acoustical Consultants (AAAC) and Styles Group is a Member Firm of the AAAC.

I have over 24 years' experience in advising on the management of noise and vibration effects, including the construction, maintenance and operational noise effects of major and strategic facilities, industries and infrastructure and the development of provisions to improve the compatibility of noise sensitive activities around such activities.

I have undertaken a significant number of acoustic assessments across New Zealand for Notices of Requirements and alterations to designations. I am regularly engaged by Councils across New Zealand to review resource consents and Notices of Requirement subject to noise and vibration standards. I have been involved in large number of mining and quarrying projects across New Zealand.

I have been involved in assessing noise and vibration effects from OGNZL's operations in Waihi in other consenting processes in 2012 / 2013. Newmont ran the mining operations at that time. I visited the Martha Mine and the various processing and tailings storage facilities that were in operation at that time.

I am a regular and experienced expert witness for Council, Environment Court, District Court and High Court and Board of Inquiry hearings.

Code of conduct for expert witnesses

In the context of this application, which is made under the Fast-track Approvals Act 2024, and in relation to which there may be no hearing, I have been asked to confirm that the reporting has been prepared in accordance with the Environment Court's Code of Conduct for Expert Witnesses.

I confirm that I have read the Environment Court's Code of Conduct for Expert Witnesses, as contained in section 9 of the Environment Court's Practice Note 2023 and agree to comply with it.

The data, information, facts and assumptions that I have considered in forming my opinions are set out in my technical report. The reasons for the opinions expressed are also set out in the technical report.

I confirm that the matters addressed in the technical report are within my area of expertise, with the exception of where I confirm that I am relying on information provided by another person. I have not omitted to consider material facts known to us that might alter or detract from our opinions expressed. I have specified where my opinion is based on limited or partial information, and I have identified any assumptions I have made in forming my opinion

3.0 Overview

The Project is described in detail in the application material, plans and MDA Report. I do not repeat the details in this review.

The MDA Report contains a significant amount of information and assessment. I do not comment on every aspect of the noise assessment in this review. Instead, I have focussed on recording agreement on important topics and recording disagreement with some specific issues. I also record some issues that I consider are not sufficiently clear at this stage and that would benefit from clarification or further consideration from the Applicant.

4.0 Proposed noise standards applying to the Project

Section 5 of the MDA Report sets out their proposed noise standards for the Project. The MDA Report proposes separate noise limits for construction activities and operational activities.

4.1 Construction noise

4.1.1 Separating construction noise from operational noise

The MDA Report proposes that construction activities are separated from operational activities with different noise limits applying to each, and that the noise effects of construction activities are assessed against construction noise limits that are generally much higher than the noise limits for operational activities (except at night).

The MDA Report is not explicit on the point, but I interpret that the distinction between construction and operational activities is taken from the definition of "Construction Work" in NZS6803:1999. The text of the MDA Report is consistent with this approach.

In general terms, the noise limits and management controls applying to construction noise are far more liberal than those applying to operational activities. The construction noise limits during the day are at least 20dB higher. This is significant.

The reasoning for this is described in 2.4 of the MDA Report. In simple and general terms, construction work is generally short term, and the temporary effects are generally tolerated by the community. This is consistent with the approach taken for most (and possibly all) major quarries and mines in New Zealand.

The general concept is that the Project requires a range of construction activities to create the infrastructure to enable the mining and processing to occur. The construction work includes the creation of or improvements to roads, conveyors, buildings, processing plant, water and waste-water facilities and much more. This infrastructure is then used during the operational phase. The distinction is analogous to the construction of tunnels, stations, rail track and signalling infrastructure to then enable the operation of the City Rail Link.

In my view, the amount of construction work required to enable the mining is significant – especially the duration. For example, construction work is expected in the Gladstone Hill area until Year 8 of the Project¹, with the operational mining phase expected to begin at that time. I consider that the scale of construction in many areas of the Project is significant and is well beyond the ‘temporary’ or ‘short term’ nature of effects that are envisaged in NZS6803:1999. However, I acknowledge and agree with the MDA Report that there are likely to be significant periods of the construction phase where noise levels will be low and / or similar to the noise from the operational phase of the Project (e.g. 40-50dB L_{Aeq}). These lower levels will assist to mitigate the effect of the long duration of the works. Notwithstanding, I consider that the long duration of noise from construction work in many areas has the potential to generate a considerable effect on receivers. I consider that this is important.

Having said that, I agree with the MDA Report that construction work should be separated from the operational noise sources and that a different set of noise limits and management controls should apply to both. The exception to this is in relation to the operation of helicopters to service Area 1, which I discuss further below.

4.1.2 Construction noise limits

The MDA Report recommends that the noise limits for ‘long term’ duration works as set out in NZS6803:1999 are adopted as a limit for day-to-day construction works, and as a ‘trigger’ for additional assessment and careful management when they cannot be complied with using practicable mitigation. NZS6803:1999 states that ‘long term’ duration works are those that are longer than 20 weeks.

I agree with this proposal.

4.1.3 Use of long-term limits as a trigger for additional mitigation

The MDA Report and the proposed conditions treat the long-term construction noise limits from NZS6803:1999 as a notional limit that must be complied with unless a certified CNMP authorises an infringement.

¹ Section 7.2.1 of the MDA Report

As set out above, I consider that this arrangement is quite common and is generally acceptable. However, the conditions and CNMP requirements that control this process need to be robust, as such a process could mean that the conditions themselves would no longer impose any upper limit on construction noise.

In this case, the proposed conditions require the following:

Proposed condition 12 sets out the objectives for the CNMP. These include that the BPO is identified and adopted to ensure that the construction noise effects are *minimised* as far as practicable.

Proposed condition 13 requires a specific section be included in the CNMP which sets out how the noise effects will be mitigated to achieve the BPO (mitigation strategies) where compliance with the proposed noise standards cannot be achieved, including consultation with occupiers of affected buildings, and then methods for noise monitoring and reporting.

The infringements of the long-term limits in proposed condition 7 can only be authorised by a CNMP that is certified by the HDC as meeting the objectives and requirements set in the conditions. I consider that this creates a level of certainty that the noise effects arising from the infringements will be reasonable. However, in my experience this will rely on OGNZL and the HDC applying a considerable degree of rigour to the determination of the BPO and the certification process.

This can include the HDC refusing to certify a CNMP if the BPO has not been adopted, and that in some cases the BPO might be to do the work in a different way, or if the work is proposed to be done at night, the BPO might be to do the work in the day if the noise effects are great enough to warrant that.

Therefore, I consider that proposed condition 8 should be updated to ensure that it only allows for the construction noise limits in condition 7 to be exceeded where the consent holder can demonstrate that it has identified and adopted the BPO for minimising the noise effects (not just managing them) and to ensure that the noise effects are reasonable. I consider that these two additions give the condition a clear and necessary direction and outcome. I consider that these amendments will improve the outcomes for receivers and will assist the HDC to inform its feedback in the certification process.

4.1.4 Overall view on construction noise limits

I consider that the construction phase will be very long in many areas of the Project and the long duration needs to be kept in mind when considering the effects, and when the HDC are certifying the CNMPs.

I also consider that there will need to be a high level of rigour applied to determining the BPO where the noise levels exceed the standard long-term limits in proposed condition 7. My experience is that the success of this process relies in-part on the HDC applying a high level of rigour to the certification process, as outlined above. This is especially important for situations where the limits applying at night or on Sundays are proposed to be infringed.

Overall, I consider that the approach to setting noise limits for construction works is generally appropriate. The proposed conditions allow flexibility to exceed the noise limits in NZS6803:1999 provided that the BPO is adopted to ensure that the effects are minimised to a reasonable level. I consider that it is critical that this flexibility is properly managed by conditions that will deliver good outcomes for the receivers of noise and that assist the HDC in its certifying role by providing a clear direction and a reasonable outcome. I recommend amendments to proposed conditions 8 and 13 to address this.

4.2 Operational noise limits.

The MDA Report assesses and predicts the noise from operational activities, as those activities have been proposed, without detailed noise mitigation measures. In some cases, the MDA Report predicts noise levels that are above the noise limits set out in the conditions, proposed by the applicant², but acknowledges that OGNZL are proposing that the noise from all operational activities is to be managed to comply with specific noise limits that are lower than some of the predicted levels. The MDA Report states that some specific mitigation measures will be required to achieve compliance with OGNZLs proposed noise limits.

Proposed condition 16 sets noise limits that apply at or within the boundary of any residentially zoned site or the notional boundary of any occupied dwelling in the Rural Zone as follows:

0700 - 2200	Monday to Saturday	50 dB LAeq
	All other times	40 dB LAeq
2200 – 0700 (the following day)		70 dB LAFmax

The MDA Report states at section 5.2.1 that these noise limits should be applied to all parts of the Project.

I agree that these noise limits are appropriate to apply to the Project.

I agree with the MDA Report that there will be some parts of the Project that will require careful design and management to ensure that the noise levels are compliant with these limits. I agree with the MDA Report that this can be achieved through an Operational Noise Management Plan, and that compliance needs to be demonstrated in such a Plan prior to operations commencing. I consider it critical that the proposed conditions deliver this outcome.

I recommend minor amendments to the proposed conditions 23, 24 and 25 to achieve this.

4.2.1 Cumulative noise effects with other OGNZL activities not part of the WNP

Section 11.2 of the MDA Report sets out a brief assessment of potential cumulative effects arising from the Project and the authorised (typical) Martha operations. The MDA Report

² For example, in section 7.3 of the MDA Report

concludes that the “*cumulative noise impacts are considered reasonable.*” This is based on the “*...significant physical separation between WNP sites and Martha...*”

The implication of this section of the MDA Report is that the ‘Martha operations’ are the only other part of OGNZLs operation that has the potential to generate noise effects that might ‘add’ appreciably to the noise effects of the Project.

However, Section 2.3 of the MDA Report states that:

“Noise generated from existing consented activities in the area has also been factored into this assessment of the WNP, to ensure a comprehensive assessment of OGNZL’s overall noise emissions. The WNP relies on a large amount of existing infrastructure, such as the Processing Plant, conveyors, tailings storage facilities, buildings and services, etc.

The project will also occur alongside ongoing consented activities, including the Martha Underground Mine (MUG) and ‘Phase 4’ of the Martha Open Pit mining (MOP4) and TSF1A and 2 works.”

This identifies that there will be some activities that are not part of the Project but that are close to it, including TSF1A and 2 that have the potential to generate cumulative noise effects. It is not clear whether the MDA assessment of cumulative noise effects includes only the open Martha pit, or the open Martha pit, MUG, MUG4 and TSF1A and 2 operations.

If the ‘Martha operations’ described in section 11.2 and the noise contour plots in Appendix D of the MDA Report are the only part of the OGNZL operation that could cause an appreciable cumulative noise effect with the Project, then I agree with MDA that the effects will be reasonable.

Notwithstanding, I consider that it would be helpful for the applicant or MDA to clarify that the Martha operations are indeed the only other part of OGNZLs operation in Waihi that has the potential to generate noise effects that might appreciably ‘add’ to the noise effects of the Project. Or if not, to provide details of other parts of the OGNZL operation that could cause a cumulative noise effect with the Project and to assess that.

I consider that it would be difficult to prepare a condition that avoided the potential for cumulative effects without becoming difficult to administer and uncertain. Notwithstanding the above comment, I consider that the proposed conditions can manage the cumulative effects of the Project and other OGNZL sites, which require individual noise levels to comply with reasonable noise limits. Such standards would allow for the potential for noise levels from two different OGNZL sites (one from the Project and one not) to add together such that the cumulative noise level exceeds one or both noise limits (in this consent or another consent or Plan rule). My opinion is that the exceedance (if any) is likely to be small (1-2dB) in most cases. So whilst not ideal, I consider that the proposed conditions can be used to manage the potential effect of such an occurrence.

5.0 Modelling and prediction of noise levels

5.1 Noise modelling methods

I have reviewed the calculation methods, modelling inputs and assumptions that are described in the MDA Report. I agree that the use of the SoundPlan software, assumptions in respect of meteorological conditions and general calculation methods are appropriate.

I have reviewed the tables of sound power level data and I consider that the data used is reasonable and consistent with measurements and assessments we have undertaken on other projects.

5.2 Noise modelling uncertainties

I consider that there are a range of uncertainties inherent in the noise modelling for a large and complex project such as this one. The vast majority of uncertainties are small and would not impact appreciably on the outputs.

However, there is one source of uncertainty that I consider to be significant in this case and that should be kept in mind. The Project is large, covers several sites and takes place over many years. The Project will change significantly over the years, and particularly during the construction phase. The noise modelling process cannot model every scenario in that time period, so some approximations and general representations are necessary. The MDA Report includes a series of predictions that give an indication of the noise levels over time and for different phases. The MDA Report is clear that these models are representations of what is envisaged and that noise levels will vary over time.

I consider that the noise models produced in the MDA Report are helpful to understand the general nature of noise effects for the different phases of the Project. However, I consider it is critical to understand that for any given scenario, the predictions will be accurate in some cases, the noise levels will be quieter than what has been modelled for an appreciable period of time, and then there will be times when the noise levels could be higher than what has been modelled.

I consider that this variability needs to be kept in mind when assessing and understanding the noise effects across the Project. The predicted levels are only an indication of what is likely to be received for any given scenario.

5.3 Operational noise level predictions

Overall, I consider that the noise modelling work is sufficiently accurate and robust for the purpose of informing the assessment of noise effects. The only exception is whether the assessment of cumulative noise effects in the MDA Report encompasses all non-Project OGNZL activities.

5.4 Helicopter noise level predictions

The MDA Report sets out the results of noise level predictions for helicopter movements. I agree with the general methodology used to prepare these predictions.

Figures 33 and 34 of the MDA Report show the helicopter noise predictions as graphical plots. However, the predictions do not clearly show the approach and departure tracks that have been adopted for the predictions. My experience is that showing the approach and departure tracks is necessary where they are required for mitigating noise effects on particular neighbours. I consider that the approach and departure tracks will be very important for mitigating noise for the receivers near Baxters Road, Golden Cross and especially at Willows Road SFA.

I consider that the approach and departure tracks should be clearly labelled, and that the conditions of consent and an ONMP for helicopters include these and require them to be followed for all flights. This includes the first and last approach and departure for the day at the remote sites where the helicopters might use a different track to what they might use for the remainder of the day (when working between two sites, for example).

I consider that there appears to be a considerable discord between the prediction and assessment of helicopter noise effects in the MDA Report and the conditions that are proposed to control helicopter noise.

For example:

- 1) Proposed condition 20 provides for a combined total of up to 50 helicopter movements from the Willows Road and Golden Cross sites, and up to 10 movements from Baxter Road, with these being 7 day rolling averages.

However, the MDA Report only assesses four daily movements from Golden Cross and 15 daily movements from Willows Road (Figures 33 and 34).

This conflicts with section 6.3 of the MDA Report where it states that helicopter noise has been modelled based on up to 30 movements from Willows Road, 21 from Baxter Road and 9 from Golden Cross.

It is not clear how the proposed conditions have arrived at the 7-day rolling average figures and whether this level of flights have been assessed in the MDA Report.

- 2) Proposed condition 25 sets out the requirements for the ONMP, and includes a specific section for operational activities at GOP and the Processing Plant to achieve compliance with Condition 16. Included within this specific section is reference to 'daily helicopter flight number limits and flight exclusion times and dates'.

Proposed Condition 16 (noise limits) does not relate to helicopter noise.

There are no proposed ONMP conditions to deal with helicopter movements to/ from Baxters Road, Golden Cross or Willows Road or in the Forest Park.

- 3) Section 6.3 of the MDA Report states that the noise from helicopters used for construction should be assessed and controlled using the construction noise standards. I agree with this.

However, the proposed construction noise conditions do not mention helicopters and proposed condition 13 (CNMP) does not set out any requirements for incorporating helicopter noise into the predictions, management procedures or management of noise levels.

I consider that conditions should be imposed which require an appropriate degree of management.

Overall, I consider that the prediction and assessment of helicopter noise in the MDA Report and the management of helicopter noise by the proposed conditions lacks integration and specificity. I consider that the proposed conditions dealing with helicopter noise need to be revised so they are consistent with the MDA Report. I consider that the conditions managing the use of helicopters for the construction and operational phases need to be amended to increase clarity, certainty and enforceability.

I consider that the conditions managing the operational use of helicopters need to include the noise limits of 50dB L_{DN} and 70dB L_{AFmax} for residential and rural receivers. I have suggested a new condition with specific noise limits for helicopter operations to deliver this outcome.

6.0 Assessment of noise effects

6.1 Ambient noise measurements

I have reviewed the sections of the MDA Report that set out the ambient noise measurements. I generally agree with the measurement methods, equipment, timeframes and assumptions used.

My only concern with the ambient measurements is the way that the data has been generalised to inform the assessment of effects.

I consider that in many cases, the MDA Report adopts a very 'averaged' or generalised description of the ambient measurement data when assessing the effect of a noise source from the Project. For example, section 10.2.2 of the MDA Report sets out the assessment of effects for the Willows SFA activities. The MDA Report states:

"Night-time operations would comply with the 40 dB L_{Aeq} noise limit in all cases. Aside from Receivers 33-35, night-time noise levels will be below 30 dB L_{Aeq} at all other dwellings and thus below the existing background noise level at night (31 dB L_{A90} as per Table 5). In these cases, noise from SFA activity will essentially be inaudible over other existing sounds.

For the closest three receivers, noise levels may be slightly higher than the background levels at times, although the average existing night-time noise level of 38 dB L_{Aeq} is notably the same as the highest predicted value in Table 15. This indicates that, while noise from the activity may be audible at times, it is unlikely to

be significantly beyond the existing ambient noise levels and therefore will not be a major change to the noise environment.”

Table 5 of the MDA Report records that the average L_{A90} at night is 31dB at MP7 (DoC land), and 39dB at MP8 (Willows Road).

However, the charts in Appendix B3 of the MDA Report show that:

- **MP7 (DoC land)** - the measured L_{A90} background sound level regularly drops to between 20-25dB for long periods of the night and day.
- **MP8 (Willows Rd)** - the measured L_{A90} background sound level regularly drops to between approximately 32-35dB for long periods of the night and day.

I consider that the MDA Report has understated the effects for receivers in these areas by referring to the single averaged figures for background sound rather than the range that has been measured. I consider that on the quieter days and nights in these areas, the noise from the Willows SFA is likely to be the dominant source of noise.

This is one example of the use of single averaged figures to describe effects of many throughout the MDA Report.

I therefore consider that the use of the averaged background figures in the MDA Report means that the conclusions they reach understate the prominence or intrusiveness of the noise from the Project – particularly on quieter days and nights.

The noise from the Project will change the character and amenity of the quieter rural areas, and in some cases quite considerably. Overall, I consider that the assessments of noise effects provided are likely to be reasonable and accurate for much of the time, but there will be considerable periods of time in calm meteorological conditions where the noise from the Project will be more prominent or dominant than what is described in the MDA Report, and has the potential to adversely affect the character and amenity of the quieter rural areas, particularly around the Willows SFA and similar presently-quiet areas that are close to major parts of the Project.

Notwithstanding this, the overall noise level can be managed via the ONMP to comply with the noise limits in proposed condition 16. On this basis, the noise levels are considered to be reasonable.

6.2 Assessment of cumulative noise effects

The MDA Report separates out the assessment of construction and operational noise effects from the assessment of effects arising from helicopter movements during both the construction and operational phases. I consider that this is a potential issue – especially for some receivers such as those close to the Willows SFA where helicopter activity is proposed to be up to 50 movements per day.

For example, the MDA Report assesses the noise effects from the operational phase of the Project for the receivers around the Willows SFA at section 10.2.2. The effects of helicopter activity there are discussed in section 10.5, but only very briefly.

Section 14.5 summarises the way that MDA have assessed the effects around the Willows SFA. It states (with my emphasis added):

“We assessed the potential noise effects from the construction, and establishment phase of the project, including the Willows Access Tunnel. Our assessment included consideration of noise effects on rural receivers, and receivers in the DOC conservation area. We have also provided extensive noise level data to help inform the ecological assessment.

For the ventilation raise and exploratory drilling sites, noise levels from the construction of the raises, both on ground and from helicopter operations would have potentially some small effects on recreational users of the DOC land, but would be of no appreciable significance due to the relatively short duration and the infrequent use by recreational users.

Noise emissions from helicopter operations associated with the operation of the WUG do not exceed a noise level of 50 dB Ldn at any noise sensitive receiver. We conclude that noise levels from general helicopter operations as a result of the project are acceptable.

For the Willows Road SFA site, construction and operational noise levels received at the nearest rural receivers would comply with the recommended noise limits and we therefore consider to be acceptable overall.”

This assessment demonstrates that MDA have assessed the operational noise effects (from general surface activities) and the use of helicopters for operational activities against two separate standards and have concluded that the effects of each are individually reasonable.

I consider that as well as assessing the effects of the different noise sources against relevant standards and guidance, the cumulative effects need to be described to ensure that the decision-maker can understand how the Project will change the sound environment at any particular location.

For example, in the case of the Willows SFA above, the assessment of noise effects should describe the noise environment that the proximate receivers would experience when all operational sources are combined.

This is a complicated matter to address in conditions without the complete assessment of cumulative effects. However, I have suggested a new condition 23 setting noise limits for helicopter use and a specific section of the new condition to reduce the noise levels to below 50dB L_{DN} at receivers R33 (111 Willows Road) and R34 (122 Willows Road) so that the cumulative effect from all operational sources remains reasonable. The predicted noise level contours in figure 34 of the MDA Report show that the predicted helicopter noise level will be significantly lower than 50dB L_{DN} (or 45dB L_{DN}) at these receivers, so my new condition with a limit of 45dB L_{dn} at the Willows Road receivers can be readily complied with based on the MDA predictions.

6.3 Road traffic noise

The MDA Report does not assess the noise from traffic generated by the Project on any roads. The District Plan noise standards do not control the noise from vehicles on roads.

However, in my experience it is common to assess road traffic noise where a proposal will create a significant increase in traffic volumes – especially on otherwise lightly trafficked roads. One example is Brookby Quarry in Auckland where the Environment Court imposed noise controls on trucks using Kimptons Road. The Brookby proposal would have significantly increased the traffic noise from Kimptons Road. The Environment Court imposed a noise limit of 50dB $L_{Aeq(1hr)}$ at 1m from the façade of the nearby houses in existence at 1 November 2006³.

I consider that the traffic accessing the Willows SFA site has the potential to affect receivers R33 (111 Willows Road) and potentially R34 (122 Willows Road) as shown on Figure 22 of MDA Report.

I recommend that the cumulative effects of operational noise, helicopter noise and road traffic noise are considered for these dwellings and managed by conditions of consent (if appropriate). I have suggested an addition to proposed condition 16 to deliver this outcome.

6.4 Assessment of helicopter noise effects in the Forest Park

I have reviewed the MDA Report on the assessment of helicopter noise in the Forest Park. I have some concerns with the way that the effects have been assessed.

I consider that the noise from helicopters used for construction would be largely indiscernible from the noise of helicopters used for operational purposes. The only difference may be that helicopters used for construction purposes may hover in one place for longer periods. I consider that an observer on a walking track is unlikely to know this possible distinction. Accordingly, I consider that a reasonable basis for the assessment is that construction and operational use of helicopters generate fundamentally the same noise effect for users of the Forest Park.

The assessment of helicopter noise in the Forest Park is informed by several variables:

- 1) The background sound level at any given observer's position
- 2) The length of time that an observer might be exposed the helicopter noise as a function of their movements and that of the helicopter.
- 3) The noise level of the helicopter(s) and the predominant flight operations (overflying, hovering, landing, taking off etc)

6.4.1 Background sound environment

The background sound environment will be critical to an observer's response to helicopter noise. In my experience, the background sound environment in the bush can vary significantly depending on weather conditions. However, wind speeds in the bush are generally low unless in exposed locations, so noise from wind in the foliage is generally low. The frequency content is also important. Ambient noise in the bush is often dominated by energy in the mid and high

³ Brookby Quarries Limited v Manukau City Council A075/2007 [2007] NZEnvC 266 (4 September 2007)

frequencies from wind in foliage, flowing water and birds. Appreciable levels of low frequency noise are rare.

In contrast, the sound of helicopters at a distance is often dominated by low frequency energy. An observer in the bush is likely to hear a helicopter at a lower level than the overall dBA level, because of the different frequency content.

Appendix B4 of the MDA Report sets out the measured sound levels in the bush on land owned by the Department of Conservation. The full measurement details and location are set out in the MDA Report. I agree with the MDA Report that this location will be generally representative of the noise levels that could be expected in back country bush.

I consider that a key feature of these measurements is that there are several days of the survey where the average (L_{Aeq}) and background (L_{A90}) levels are between 20dB and 30dB for extended periods during the daytime. These are very quiet levels. These levels are considerably quieter than the 30dB L_{Aeq} 'background' level that the MDA Report uses to assess the presence of helicopters in their figures depicting ventilation raise sites and helicopter activity in the Forest Park (take Figure 28 as an example).

For these reasons, I consider that in calm meteorological conditions and when away from streams and rivers, the noise from helicopters and other surface activities in the Forest Park is likely to be more audible and detected at greater ranges from the noise sources than is depicted in Figures 25 to 32 of the MDA Report.

6.5 Length of time that an observer might be exposed to Project noise

I understand that there are walking tracks and huts in the area that the public are able to use. I understand that people in other parts of the bush (not on tracks) is rare.

Figure 24 of the MDA Report helpfully sets out the walking tracks that are proximate to the orebody and main areas of the Project in the Forest Park.

Figure 28 of the MDA Report is a useful example. This shows the predicted noise level across the Forest Park for a scenario where a heavy-lift helicopter is hovering for 15 minutes. The figures show noise levels of 30dB L_{Aeq} or greater will be experienced across more-or-less the entire length of the Wharekirauponga track and as far as the Waipaheke motorbike track.

As set out above, I consider that an observer would easily detect the presence of helicopter noise at distances greater than these in calm meteorological conditions, albeit at low levels.

For these reasons, I consider that:

- An observer walking the Wharekirauponga track would be exposed to helicopter noise for the majority of the walk if helicopters were operating the whole time. Taking into account the noise of a helicopter transiting between the landing areas and Area 1, as well as potential hovering, I expect that a walker of the Wharekirauponga track could be exposed to helicopter noise for much of the walk, and probably for more than 50% of it on some days. Helicopter noise would be over 70dB L_{Aeq} at the loop-section of the

Wharekirauponga track. This would be dominant and would likely require shouting for walkers to communicate.

- Walkers of the other tracks to the north of the Wharekirauponga track may experience helicopter noise for short periods of their walk in the most exposed parts.

6.6 The noise level of helicopters and other plant

The noise level of the helicopters and other plant is relatively fixed. I expect that the noise from pumps and other surface plant could be reduced by mitigation measures at the source, but that the installation of these (potentially requiring a helicopter) would generate a noise effect in itself. Such mitigation may be appropriate for particularly noisy items of plant that might run for long periods of time (months).

The noise level of helicopters cannot be practicably reduced at the source by physical means. This becomes a fixed variable in the assessment.

6.7 Waikato Conservation Management Strategy

Sections 3.3 and 3.4 of the MDA Report set out the relevant sections of the Waikato Conservation Management Strategy (WCMS) and then provide a brief review of the way that the WCMS should be applied.

I note several key issues in this section of the MDA Report. Section 3.3 states (my emphasis):

*“Overall, because the ventilation raises and additional exploratory drilling associated with WUG are proposed in conservation/open space areas, it is recommended that operational noise emissions [including helicopter noise] should be minimised as much as is practicable, and they should ideally not exceed the background noise level at any nearby walkways or campsites. This approach reflects the intent of the WHO Guidelines and the Waikato CMS and is considered an appropriate method to adopt for this project. **However, we consider that temporary construction noise does not need to meet this goal.**”*

The MDA Report does not provide any reasoning to support their contention that construction noise (including helicopters in the Forest Park) does not need to be assessed against the policies of the WCMS. As I note above, I consider that from a Forest Park users' perspective, it will generally not be possible to distinguish the noise effects of a helicopter conducting construction or operational activities.

I am not aware of any part of the WCMS that exempts construction from needing to be assessed against its provisions – especially construction works that could be several years long. I consider that any determination that the WCMS is not relevant for long periods of construction noise effects is a matter for planning or other experts.

Section 10.5.3 of the MDA Report states:

“With respect to the Waikato CMS, we note that Policy 16.3.5.3 a) suggests that limits of 2 landings (which includes hovering ops) per operator per day (or 20 landings per year) at any one site should be applied. This is unlikely to be achieved

*in practice. However, **we consider that the operation of helicopters would not cause anything beyond ‘occasional intrusion’** when backcountry visitors are traversing the loop part of the track and therefore noise levels would in our opinion be acceptable, **and consistent with the overall intent of the policies of the Waikato CMS.***

I disagree with this finding. I consider that there will be positions in the Forest Park where the noise from helicopters could be present considerably longer than for an ‘occasional intrusion’, especially when considering that there could be up to two movements in any 15 minute period and up to 60 movements in a day and hovering for extended periods for construction work.

Based on the assessment information available in the MDA Report, I expect that helicopter noise during the operational phase could be a regular and prominent feature in parts of the Forest Park. I expect that helicopter noise will be loud and dominant for short periods when overhead or landing / departing nearby, and that for much longer periods the helicopters will be audible / present at lower levels.

These effects are only relevant when there are people in the Forest Park to observe the noise.

6.8 Possible mitigation options

I have considered whether there are possible mitigation measures that could reduce the effects of Forest Park users – in particular walkers of the Wharekirauponga track.

I consider that it might be possible to reduce the noise effects on these park users by:

- 1) Limiting and potentially avoiding helicopter use (construction or operational) when the Wharekirauponga track is more likely to be used by the public. This might include over holiday periods and in the warmer months generally.
- 2) Installing physical screening or noise mitigation such as low-noise exhausts or other accessories to pumps, compressors and any other plant used on the surface in the Forest Park, especially where they are near to walkways.
- 3) Limiting helicopter movements into the Forest Park to periods when the walking tracks are not busy or not being used at all. This may necessitate helicopter movements being limited to the early morning and late afternoon periods.
- 4) Carefully specifying approach and departure tracks and flight paths to avoid or minimise noise effects in sensitive areas of the Forest Park.
- 5) Allowing greater use of helicopters in the Forest Park when the walking tracks are not used or perhaps are seldom used.

I consider that these mitigation options will only be successful where the Project can accommodate them. For example, there may be operational reasons for using the helicopters throughout the summer and peak periods that might coincide with the peak use of the walking tracks.

I consider that OGNZL will need to assess the practicability of mitigating the noise effects in the manner described above, or by any other means.

I consider that an addition to the ONMP to require consideration of plant noise and a specific Helicopter Noise Management Plan could be appropriate for determining the mitigation methods and how and when they are applied to minimise the noise effects. I consider that the effectiveness of such a management plan approach can only be known when OGNZL are able to consider the practicability of minimising the effects.

7.0 Ecological Assessment

I have reviewed the appendices to the MDA Report that set out the methods and procedures used to undertake noise level measurements and predictions to inform the ecological assessment. I consider that there are several issues with the assessment of masking effects and the outputs that are intended for the ecologists to rely on.

I understand from Mr Kessels and Mr Baber (for the HDC) that the Project noise effects on native fauna are potentially “very high”, particularly for avifauna. However, they also “*expect these effects to be more than addressed by the benefits to avifauna anticipated from the extensive mammalian pest management proposed in the WPAMP.*”

Accordingly, the issues I have with the acoustic assessment that informs the ecological assessments are of low relevance, in that fixing those issues will not affect the overall ecological assessment and outcomes.

On that basis I consider that the section of the MDA Report that informs the ecological assessments can be used as a general indication of the different effects that might arise on birds.

8.0 Summary of findings

The main findings of my review are:

- 1) The MDA Report contains a significant amount of information and assessment. I have focussed on recording agreement on important topics and recording disagreement with some specific issues.
- 2) I agree with the MDA Report that construction work should be separated from the operational noise sources and that a different set of noise limits and management controls should apply to each. I consider that the long duration of noise from construction work in many areas has the potential to generate a considerable effect on receivers.
- 3) The MDA Report recommends that the noise limits for ‘long term’ duration works as set out in NZS6803:1999 are adopted as a limit for day-to-day construction works, and as a ‘trigger’ for additional assessment and careful management when they cannot be complied with using practicable mitigation. I agree with this proposal.
- 4) The MDA Report and the proposed conditions treat the long-term construction noise limits from NZS6803:1999 as a notional limit that must be complied with unless a

certified CNMP authorises an infringement. I consider that this arrangement is quite common and is generally acceptable. However, the conditions and CNMP requirements that control this process need to be robust, as the conditions themselves would no longer impose any upper limit on construction noise. My experience is that this relies on OGNZL and the HDC applying a considerable degree of rigour to the determination of the BPO and the certification process. This is especially important for situations where the limits applying at night or on Sundays are proposed to be infringed. I have recommended amendments to proposed conditions 23, 24 and 25 to deliver this.

- 5) Overall, I consider that the approach to setting noise limits for construction works is generally appropriate.
- 6) I consider that the assessments of noise effects provided are likely to be reasonable and accurate for much of the time, but there will be considerable periods of time in calm meteorological conditions where the noise from the Project will be more prominent or dominant than what is described in the MDA Report. I consider that the noise from the Project is likely to adversely affect the character and amenity of the quieter rural areas, particularly around the Willows SFA and similar presently quiet areas that are close to major parts of the Project.
- 7) OGNZL are proposing that the noise from all operational activities is managed to comply with specific noise limits that are lower than some of the predicted levels. The MDA Report states that some specific mitigation measures will be required to achieve compliance with OGNZLs proposed noise limits. I agree that these noise limits are appropriate to apply to the Project.
- 8) I agree with the MDA Report that compliance with the proposed operational noise limits needs to be demonstrated in an Operational Noise Management Plan prior to operations commencing.
- 9) I consider that it would be helpful for the applicant or MDA to clarify that the Martha operations are indeed the only other part of OGNZLs operation in Waihi that has the potential to generate noise effects that might appreciably 'add' to the noise effects of the Project. Or if not, to provide details of other parts of the OGNZL operation that could cause a cumulative noise effect with the Project and to assess that. In the absence of such an assessment or clarification, I consider that the proposed noise limits will be capable of managing any potential cumulative effects so that the cumulative noise level would only be 1-2dB above either the proposed noise limit in condition 16 of the noise limits permitted by other consents or District Plan rules.
- 10) I have reviewed the calculation methods, modelling inputs and assumptions that are described in the MDA Report. I agree that the use of the SoundPlan software, assumptions in respect of meteorological conditions and general calculation methods are appropriate. I have reviewed the tables of sound power level data and I consider that the data used appears to be reasonable and consistent with measurements and assessments we have undertaken on other projects.

- 11) I consider that the noise models produced in the MDA Report are helpful to understand the general nature of noise effects for the different phases of the Project. However, I consider it is critical to understand that for any given scenario, the noise levels will be quieter than what has been modelled for an appreciable period of time, and there will also be times when the noise levels could be much higher than what has been modelled. This comment does not require any action from the applicant. Rather, it is intended to inform the decision-makers.
- 12) I consider that the conditions relating to helicopter noise require some further consideration. I consider that the MDA Report and proposed conditions are not clear how the noise from helicopters used during construction and operational phases will be managed with certainty, and what the cumulative effects with other Project noise sources will be. I have recommended new conditions for managing helicopter noise to address this.
- 13) Based on the assessment information available in the MDA Report, I expect that helicopter and plant noise could be a regular and prominent feature in parts of the Forest Park. I expect that helicopter noise will be loud and dominant for short periods when overhead or landing / departing nearby, and that for much longer periods the helicopters will be audible / present at lower levels. These effects are only relevant when there are people in the Forest Park to observe the noise.
- I have considered whether there are possible mitigation measures that could reduce the effects of Forest Park users – in particular walkers of the Wharekirauponga track. I consider that an addition to the ONMP to require consideration of plant noise and a specific Helicopter Noise Management Plan could be appropriate for determining the mitigation methods and how and when they are applied to minimise the noise effects. I consider that the effectiveness of such a management plan approach can only be known when OGNZL are able to consider the practicability of minimising the effects.
- 14) I consider that the noise levels arising from traffic increases on Willows Road need to be managed to ensure they are reasonable when assessed cumulatively with operational noise and helicopter noise at the Willows SFA. I have recommended an addition to proposed condition 16 to set specific noise limits for this source at the closest receivers on Willows Road.
- 15) I have a number of concerns with the acoustic assessment used to inform the ecological assessment. However I understand that the ecologists are not relying heavily on the accuracy of the relevant parts of the MDA Report. This means that these sections of the MDA Report can remain and be used as a general indication of the type and extent of effects that may arise on birds.

PROJECT MEMORANDUM



Project: OCEANA GOLD WAIHI NORTH – FAST TRACK APPLICATION **Memo:** 1/R3 **Page:** 1 of 44

Topic: Feedback – Landscape, Natural Character and Visual Amenity

Date: 21/08/2025

Attention: Leigh Robcke – Hauraki District Council / Craig McGarr – Bentley & Co

From: Dave Mansergh – Consultant Landscape Architect for Hauraki District Council

INTRODUCTION

The comments contained in this memorandum relate to the Landscape, Natural Character, and Visual Effects Report submitted as part of the application.

The comments have been prepared following a technical review of relevant parts of the application by David Graham Mansergh of Mansergh Graham Landscape Architects Ltd (“**MGLA**”), on behalf of the Hauraki District Council. My qualifications and experience, area of expertise, compliance with the Environment Court Practice Note and previous involvement in the application are contained in Appendix A, below.

DOCUMENTS REVIEWED

The following documents have been reviewed:

1. *Waihi North Project. Landscape, Natural Character and Visual Effects Assessment Prepared for OceanaGold New Zealand Limited.* 10 February 2025. Revision 5. Boffa Miskell Ltd. (“**LNCVE**”).
2. *WUG Ecology and Landscape Management Plan Wharekirauponga Underground Mine 2025.* Oceana Gold. 3 March 2025. (“**ELMP-WUG**”).
3. *Ecology and Landscape Management Plan Waihi Area 2025.* Oceana Gold. 3 March 2025. (“**ELMP-WA**”).
4. *Waihi North Project - Schedule 1: Proposed Conditions Common to The Hauraki District Council and Waikato Regional Council Resource* (“**combined conditions**”).
5. *Waihi North Project - Proposed Conditions for the Hauraki District Council Land Use Consents*. (“**HDC conditions**”).
6. Part C- Projects maps and technical drawings.
7. *The Evidence of Rhys James Girvan.*
8. *Figure A Proposed Closure – WUG Surface Facilities Area.* December 2024. Revision 2. Boffa Miskell Ltd (“**closure plans**”). Figure 6-16 on page 536 of *Part A – Waihi North Project – Substantive Application*.
9. *Figure B Proposed Closure – GOP, NRS and TSF3.* December 2024. Revision 2. Boffa Miskell Ltd (“**closure plans**”). Figure 6-17 on page 537 of *Part A – Waihi North Project – Substantive Application*.

Relevant sections of the application documentation listed on the fast-track application website have been reviewed to provide background context to the application and to verify whether the LNCVE has accurately identified and discussed the effects in sufficient detail.

EXECUTIVE SUMMARY

The method applied to the assessment of effects on the landscape, natural character, and visual amenity assessment is suitably consistent with the methodological frameworks and recommendations contained in *Te Tangi a te Manu- Aotearoa New Zealand Landscape Assessment Guidelines*. The method applied adequately identifies the characteristic features and attributes of the existing landscape, the proposed activity and identifies the nature and magnitude of the effects. While this is not always undertaken in a consistent manner, the inconsistencies do not affect the overall conclusions reached in the report or the mitigation recommendations. However, I do not consider that the current form of the conditions and mitigation requirements in the ELMPs, that are based on these recommendations, are sufficient.

The majority of the effects on landscape character and visual amenity will occur within the development areas located within what is appreciable as a 'rural' landscape (Areas 2, 3, 5, 6 & 7), where surface infrastructure, landform modification, and vegetation clearance will result in noticeable and often prolonged changes to the existing landscape. These areas are more exposed to public and private viewpoints and are situated within a working rural setting where changes are more apparent. In contrast, the area of the Wharekirauponga Underground Mine (Area 1), due to the subsurface nature of the activity and its location within the forested interior of the Coromandel Forest Park, will have limited effects on landscape character, natural character, and visual amenity. The physical surface footprint associated with the proposal within the Forest Park is small, relative to the scale and extent of the above ground structures, resulting in a more contained and less perceptible level of effect.

While the mitigation recommendations and requirements outlined in the LNCVE, are generally sound and are consistent with current best practice, the supporting mitigation framework which they are intended to feed into, (comprising the LNCVE, the ELMP-WUG and the ELMP-WA), and the proposed conditions of consent are disparate, lack clarity and integration, with critical mitigation recommendations and requirements dispersed across multiple documents without a clearly articulated or cohesive structure. As a result, it is not immediately apparent what specific mitigation actions are required, what performance standards must be met, or how the effectiveness of those measures will be evaluated. This fragmented structure reduces certainty, complicates implementation and future compliance monitoring, which will make it more difficult for the Council to administer the consent effectively.

To address this, it is recommended that the mitigation framework be strengthened by rationalising the proposed conditions, consolidating all mitigation requirements into revised versions of the ELMP-WUG and ELMP-WA, and introducing *performance standards* to guide implementation and support effective implementation monitoring. This will have the effect of improving clarity of the intended outcomes, transparency of the approach to achieve those outcomes, and identify how to determine compliance.

The proposed post rehabilitation and closure concept detailed in the *Fig A Proposed Closure – WUG Surface Facilities Area* and *Fig B Proposed Closure – GOP, NRS, and TSF¹* plans is designed to restore the landscape to a mix of ecological, amenity (visual and recreational) and rural land uses. The approach is consistent with current best practice in mine facility closure and landscape restoration, focusing on long-term integration of modified landforms and land uses with the surrounding environment. Further detail on how this will be achieved will be provided through the ongoing development of the rehabilitation and closure concept plans. These are required to be submitted to the Council for certification and are therefore of less concern than the contents of the two ELMPs, which are proposed to be certified through the decision. These documents (the two ELMPs) require substantial amendment before certification to ensure they can be successfully implemented and effectively managed throughout the operational phase of the proposal.

¹ Figures 6-16 and 6-17. Part A- Waihi North Project – Substantive Application

Subject to the recommended amendments, I concur that the effects of the proposal on landscape, natural character, and visual amenity can be avoided or appropriately mitigated. Remediation measures will ensure the project remains visually contained within the established mining context, with no significant increase in adverse landscape or visual effects anticipated. Through sympathetic siting and the identified landscape mitigation, the project will integrate into within its local setting and will facilitate positive landscape and natural character outcomes over the long term.

It is during the operational phase that the adverse effects identified in the LNCVE (and related reports) must be mitigated in accordance with their stated intent. Ensuring these effects are addressed through clear, coordinated mitigation measures and enforceable *performance standards* is critical to achieving the nominated environmental outcomes initially, and on an ongoing basis. I have proposed a set of amendments to the conditions of consent and the ELMP-WUG and ELMP-WA to ensure that mitigation measures are clearly defined, integrated, and practical to implement. These include establishing robust *performance standards*, specifying timeframes and lead-in periods, clarifying the purpose and duration of planting and other measures, and ensuring monitoring and compliance processes are transparent. Together, these changes are intended to give greater certainty that the recommended mitigation will be implemented effectively and maintained for as long as required to achieve the desired outcomes.

COMMENTS TOPICS

Comments are provided on the following topics:

- a. Part 1 - Comments on the Landscape, Natural Character and Visual Effects Assessment (“**LNCVE**”); and
- b. Part 2 - Comments on the Effectiveness of the Proposed Mitigation Framework (“**PMF**”).

PART 1 - COMMENTS ON THE LANDSCAPE, NATURAL CHARACTER AND VISUAL EFFECTS ASSESSMENT (“**LNCVE**”)

In general, the LNCVE has been prepared, using a methodological approach consistent with the recommendations contained in *Te Tangi a te Manu -Aotearoa New Zealand Landscape Assessment Guidelines* (“**TTatM**”). As such, the report contains sufficient information for the overall nature of the proposal to be understood, its effects on the landscape, natural character and visual amenity to be identified, and their magnitude rated. While there are some gaps in the analysis of effects, these are generally location specific and only affect the understanding of mitigation requirements, rather than the overall findings.

While the following comments identify limitations and gaps in the assessment, that the Fast-Track Panel should be aware of, none are considered significant enough to be fatal to findings of the LNCVE (or the application itself from a landscape, natural character and visual amenity perspective only). Any shortcomings identified, such as gaps in the natural character assessment, insufficient viewpoint coverage, or limited cumulative effects analysis, can be addressed through the recommended changes to the conditions of consent and the mitigation and management plan process (i.e. recommended amendments to the proposed ELMPs).

The following comments are made about the level of analysis and findings contained in the LNCVE.

Assessment Methodology and Approach

The LNCVE adopts a methodological framework generally consistent with current best practice. The assessment identifies the existing landscape (receiving environment) using the recommended conceptual framework of landscape as comprising physical, perceptual and associative dimensions (as per TTatM), identifying the proposed changes that will occur within the landscape and uses a seven-point scale for describing the magnitude of effects.

However, the effects analysis tends to focus on describing the expected change to the landscape's physical attributes, rather than assessing the consequences of that change for the identified values of the landscape, as is recommended under TTatM. The reasoning that supports the effect ratings is not always transparent, particularly in relation to how the nature of effects has been considered prior to arriving at a magnitude rating. The stated method is inconsistent across the various project areas ².

Recognition and Integration of Mana Whenua Values

The assessment acknowledges Māori historical associations with the landscape and references the *Ngāti Tara Tokanui Cultural Values Assessment* ("NTTCVA"). However, the consideration of tangata whenua values is limited to the associative dimension and is not integrated across the full suite of physical and perceptual dimensions, as recommended by TTatM, which explicitly identifies the need to consider tāngata whenua relationships with the landscape in a holistic manner.

This represents a methodological limitation, given the importance of Te Ao Māori perspectives in understanding and assessing effects on the landscape. It is acknowledged that such integration is reliant on input from mana whenua, and this is a matter for them to comment on.

Identification and Assessment of Relevant Statutory Provisions

The LNCVE identifies the relevant statutory planning provisions, including those under the Resource Management Act 1991 (RMA), the Waikato Regional Policy Statement (WRPS), Waikato Regional Plan (WRP), and the Hauraki District Plan (HDP). The assessment addresses the key matters of national importance under section 6 of the RMA (notably s6(a) and s6(b)), as well as amenity values under section 7(c).

However, there is limited analysis in the LNCVE of how the proposal responds to specific objectives, policies and assessment criteria in the WRPS, WRP and HDP. These lower order documents give effect to the RMA and help frame the landscape values and outcomes that should be considered in the assessment. I acknowledge that, for this application, this matter is more appropriately addressed in the AEE, with reference to and interpretation of the LNCVE.

Assessment of Natural Character Effects

The LNCVE broadly follows the approach recommended in TTatM for the assessment of natural character. It identifies the relevant waterbodies and their spatial extent within each project area and assesses abiotic, biotic and experiential attributes. However, the application of this methodology is inconsistent across the various project areas, and the transparency of the findings varies considerably.

In particular, the assessment does not always provide a clear explanation of how the magnitude of effects has been determined. Some adverse effects, such as the loss of a warm spring within the upper Wharekirauponga Stream in the Coromandel Forest Park, are acknowledged but not evaluated in terms of their localised implications for natural character. The proposed mitigation for this loss is not mentioned in the LNCVE and is poorly articulated in the ELMP-WA. It is therefore unclear, from a natural character perspective, how the proposed compensation planting offsets the loss of the warm spring, if the proposed compensation is adequate and why the proposed compensation planting is not located in the same catchment as the warm spring.

While Appendix 4 of the LNCVE provides a more structured analysis of natural character effects within the Forest Park, the assessment of natural character effects for other areas (e.g., Willows Road, Gladstone Open Pit, TSF3, and the Northern Rock Stack) is more limited in depth and detail. In these cases, effect ratings are not always

² Areas 1, 2, 3, 5, 6 & 7, as defined in the application documents.

provided, and where they are, the timing and effectiveness of mitigation are not clearly linked to those ratings. TTatM recommends that both the nature and timing of effects, including temporary effects during construction, be assessed explicitly. This has not been done consistently.

However, while the influence of the proposed mitigation on natural character is not consistently explained, the ecological mitigation planting and other associated works identified in the ELMP-WUG and ELMP-WA, if implemented and allowed to established to maturity as intended and as recommended in the ecological assessments and the LNCVE, will result in an increase in the overall natural character values across the landscape of the respective Areas. While the proposed mitigation and remediation works may not result in a like-for-like replacement, which, aside from the warm water spring, is not considered necessary from a natural character perspective, they should deliver an overall net gain in natural character values.

Relevant issues with the natural character assessment contained in the LNCVE are identified in the Table 1 below.

LNCVE Reference	Identified Issue	Comments	Addressed by Proposed Mitigation Recommendations	Recommendations
Appendix 4: Natural Character Assessment within Coromandel Forest Park, Wharekirauponga Stream – Modified Natural Character	Proposed offset for loss of warm spring is not mentioned in the LNCVE and is poorly articulated and contradictory in the ELMP-WA. This is because ELMP-WUG Table 3 'Warm Spring Compensation' refers to 'Vent Shaft Offset' which is broadleaf forest, while ELMP-WUG Figure 2 identifies warm spring offset in Mataura Stream Tributary 3 headwaters.	The relationship between the affected warm spring in the Wharekirauponga Stream and the proposed offset planting sites, either as broadleaf forest or within the Mataura Stream tributary, remains unclear. It is uncertain whether the planting is intended as mitigation or compensation, and if compensation, how the scale and location have been determined or whether they are adequate. The loss of the warm spring may not be directly mitigable, and further clarification is needed to confirm the appropriateness of the proposed response.	Yes, but unclear and contradictory.	Amend the ELMP-WA to clearly state that planting is compensation for the loss of the warm spring. Justify the scale, type, and location of the compensation planting, ensuring it is directly linked to the loss through compensation riparian planting in the Mataura Stream Tributary 3, which is more suitable than the broadleaf forest offset given the nature of the effect. Remove contradictions between ELMP-WUG Table 3 and Figure 2 to ensure a consistent, transparent, and effective approach.

Assessment of Landscape Effects (Including Visual Amenity Effects)

Landscape Effects

The assessment of landscape effects draws on established principles and includes a structured description of the landscape values, change to landform, land cover and landscape character. It appropriately recognises the physical, perceptual and associative attributes of landscape character. The key components of the Waihi North Project are addressed individually.

However, the assessment does not clearly articulate the effects on identified landscape values. The analysis is more focused on describing change to the physical environment, with insufficient evaluation of how those changes affect identified values.

As with the natural character assessment, the assessment also lacks clarity regarding the duration of effects and when mitigation will be effective. TTatM advises that assessments should identify when in the life of a project various effects will occur and when mitigation will reduce those effects. This information is essential for determining whether effects are acceptable during implementation and operation, or whether additional controls or timing/implementation conditions are required.

Visual Effects

Visual effects have been assessed from five groups of representative viewpoints, supported by fieldwork and photo-simulations prepared in accordance with NZILA best practice guidance. This approach is broadly consistent with TTatM and the NZILA BPG 10.2 in respect of visual simulations.

The assessment of private views is limited. While site visits to some private properties were reportedly undertaken, the assessment does not provide a clear or transparent account of the potential effects on private visual amenity. Instead, the findings from these locations are merged with the public view assessments, making it difficult to understand whether adverse effects exist for nearby residential receivers and what, if any, mitigation may be required. This is particularly relevant to understanding the effects on the visual amenity of property owners and occupiers on Willows Road, Golden Valley Road and Trig Road, who will experience a more noticeable level of change in their surrounding environment. This is discussed further, below.

The analysis also shares similar shortcomings to the landscape effects assessment, in that the focus remains on whether the proposed changes to the landscape will be seen and what they will look like, rather than how those changes will affect existing/reasonably expected visual amenity (derived from the views across the surrounding landscape). Consequently, the basis for effect ratings is not always evident.

However, in saying this, the implementation of the proposed rehabilitation and closure plans (*Fig. A Proposed Closure - WUG Surface Facilities Area* and *Fig. B Proposed Closure - GOP, NRS and TSF3*, both December 2024 Revision 2), will restore the landscape to a character type consistent with the wider adjacent rural and conservation landscape. The concern relates solely to whether the effects during the operational phase of the proposal have been adequately identified and addressed through the relevant ELMP.

Magnitude of Effects and Cumulative Effects

In some instances, the effect ratings (the magnitude of the effects) appear to be lower than I would have expected given the nature and scale of the proposed development and my experience in the assessment of other mines and quarries in similar landscape types. This is particularly evident in relation to effects in and around the township of Waihi and at the Willows Road portal site, where the degree of landscape and visual modification will be more pronounced. In contrast, the effects attributed to the Wharekirauponga Underground Mine and associated activities within the Coromandel Forest Park are considered to be consistent with expectations for surface effects associated with an underground mine of the nature proposed and are generally supported by the assessment.

The effect ratings are lower than I expected, possibly due to the assessment approach of evaluating each project Area separately rather than considering their combined effects. This is especially relevant for Areas 5, 6, and 7, which are experienced together or sequentially by residents and people travelling through the landscape. While assessing each area separately provides a detailed understanding of the effects for each activity area, this

approach can obscure the broader landscape implications of the overall development when viewed at the scale of the *relevant landscape*³.

As a result, the assessment does not clearly articulate the cumulative effects of the various project components, whether considered incrementally, in combination with each other, or alongside existing mining-related activities in the wider Waihi area. This should include a clear evaluation of the effects of all proposed aboveground activities associated with the NRS, GOP and TSF3 on the broader landscape. As such, these effects are, in my opinion, understated. This includes the cumulative impact of changes to landform, land cover, landscape character, and visual amenity, as well as the ongoing transformation of the rural and peri-urban landscape due to sustained and expanding mining activity, including effects on the transient experience of the landscape by those passing through or visiting the area.

However, this issue can be addressed by integrating targeted landscape and visual effects management requirements into the ELMP-WA, supported by *performance standards* that specifically address the effects on the rural and peri-rural Waihi landscapes surrounding Areas 5, 6, and 7. These distinct landscape character types are each affected in different ways by the proposal, so mitigation measures should (and can) be tailored accordingly. Further comments and recommendations on the ELMPs are provided below.

Gaps in Assessment Coverage and Implications for Mitigation

While the LNCVE provides a broad evaluation of the proposal's effects from a range of public viewpoints, there are some notable omissions in the coverage of representative viewing locations. In particular, the assessment does not include sufficient analysis of the effects on private properties along Willows Road, Waihi-Whangamata Road, Golden Valley Road and Trig Road (including the Trig Road ridgeline).

The limited analysis of these locations has, in my opinion, resulted in the effects on the visual and landscape being underestimated for elevated and potentially sensitive viewing audiences, particularly from nearby rural dwellings and road corridors. This, in turn, has affected the ability of the assessment to identify all relevant mitigation requirements.

Relevant issues with the landscape and visual assessment contained in the LNCVE are identified in the Table 2 below.

TABLE 2 : LANDSCAPE CHARACTER AND VISUAL EFFECTS ASSESSMENT – RELEVANT ISSUES				
LNCVE Reference	Identified Issue	Comments	Addressed by Proposed Conditions and/or ELMP	Recommendations
Section 7.3 Visual, W1 Willows Road	While potentially affected properties were identified (nearest neighbours represented by VS2 and VS3 (122, 111A and 111B Willows Road), access to private properties along Willows Road has not been obtained to confirm the nature and level of visual effects from individual dwellings.	Adverse visual effects from the SFA are mitigated by proposed screen planting. There is reliance on existing surrounding vegetation to screen or partially screen the temporary topsoil stockpiles and the Willows Rock Stack (WRS).	Partially	It is recommended that the ELMP-WUG be amended to require that screen planting remains in place until surface structures at the SFA have been removed and the site fully restored. It is also recommended that the existing vegetation that provides screening or partial screening of the topsoil stockpiles and the WRS is mapped and

³ Para 5.15 of *Te Tangi a te Manu – Aotearoa New Zealand Landscape Assessment Guidelines* states: *Identify the spatial extent of the relevant landscape. This is a key matter that has implications for what is deemed to be an area's character and values.*

PROJECT MEMORANDUM

				maintained during the operational stage of the consent.
Section 9.4 Visual, 9.4.1 Viewing Audience and Representative Viewpoints and N1: Golden Valley Road	Access to private properties along Golden Valley Road has not been obtained, so visual effects on individual dwellings (eight total, five owned by OGNZL) remain unconfirmed. The LNCVE notes that the most sensitive private views are likely from a recently completed dwelling north-east of the proposed NRS.	Adverse visual effects are expected to be mitigated by the proposed screen planting alongside the stockpiles adjacent to Golden Valley Road.	Yes	It is recommended that the ELMP-WA be amended to require that screen planting remains in place until the temporary stockpiles located alongside Golden Valley Road have been fully rehabilitated.
Section 11.4 Visual, 11.4.1 Viewing Audience, Figure 20 of the LNCVE	The assessment does not clearly distinguish the potential effects on visual amenity for private viewers along Trig Road, as findings from these locations are combined with public viewpoint assessments. The LNCVE assessment appears inconsistent, noting in the T2 analysis (VS19 and VS20) that dwellings on localised high points may have increased visibility, while the visual effects table states that views from dwellings are enclosed by vegetation.	Additional screen planting may be required to mitigate visual effects of TSF3 and associated stockpiles, as the LNCVE identifies moderate to high cumulative visual effects but does not clearly identify specific effects or corresponding mitigation for private or public viewpoints.	No – Contrary to the requirement to screen the Willows Road topsoil stockpiles and the NRS, no screening of the TSF3 topsoil stockpiles is proposed.	It is recommended that the ELMP-WA be amended to require all screen planting to remain in place until temporary landforms, including topsoil stockpiles, are fully rehabilitated.
Section 8.0 Gladstone Open Pit, 8.2 Proposed Development, 8.3.3 Landscape Character, 8.4 Visual Effects	The purpose of retaining pine trees in Replacement Planting Zone 3 during GOP operations, screening views of the works from the southwest, has not been clearly identified in the ELMP-WA.	The retention of pine trees in Replacement Planting Zone 3 appears to address visual screening during GOP operations, but the intended purpose is not specified. This mitigation function, screening the GOP works from locations to the southwest, should be clearly identified in the 'Screen Planting' row of the ELMP-WA table.	Yes	It is recommended that the ELMP-WA be amended to clearly state that the retention of pine trees in Replacement Planting Zone 3 is intended to provide visual screening of the GOP works from locations to the southwest during operations. This purpose should be explicitly included in the 'Screen Planting' row of the ELMP-WA table to ensure the mitigation function is clearly identified and understood.

Review Findings

The method applied to assessing effects on landscape character, natural character, and visual amenity is generally consistent with the methodological frameworks and recommendations set out in Te Tangi a te Manu – Aotearoa New Zealand Landscape Assessment Guidelines. The approach appropriately identifies the characteristic features and attributes of the existing landscape, describes the proposed activity, and assesses the nature and magnitude of potential effects. While the assessment is not always applied in a fully consistent manner across all components, any gaps identified do not materially alter the overall conclusions of the report or the associated mitigation recommendations.

Most observable effects on landscape character and visual amenity will arise within the development areas located in the rural landscape (Areas 2, 5, 6,7), where surface infrastructure, landform modification, and vegetation clearance will cause noticeable and, in some cases, prolonged changes to the existing landscape. These areas are more exposed to both public and private viewpoints and sit within either a working rural environment, or in the case of Area 5 which is in the Martha Mineral Zone, a working industrial environment, where changes are more visible. It should be noted however, that within Area 5, the proposal does not introduce a new or different type of activity that will change the existing landscape values of the area, rather it changes the relative proportion, scale and visibility of activities already experience in the landscape.

By contrast, the Wharekirauponga Underground Mine (Area 1), due to its subsurface nature and location within the forested interior of the Coromandel Forest Park, will have relatively limited effects on landscape character, natural character, and visual amenity. The surface footprint within the park is small, above-ground works are minimal, and resulting changes are more contained and less perceptible, relative to the viewing audience.

While the LNCVE has not assessed all potential effects on surrounding private properties, such as those from TSF3 on properties along Trig Road, the likely nature of effects on landscape character, natural character, and visual amenity is well understood. The recommended mitigation framework in Part 2 of this report is designed to address such effects comprehensively, ensuring that mitigation is effective regardless of whether specific effects have been individually identified. For example, in the case of TSF3, the framework requires earth shaping, grassing, and hydroseeding performance standards to be implemented promptly for each lift and stockpile, ensuring that adverse effects are mitigated as they arise.

PART 2 - COMMENTS ON THE EFFECTIVENESS OF THE PROPOSED MITIGATION FRAMEWORK (“PMF”).

The Proposed Mitigation Framework

For the following comments, the PMF is defined as the integrated package of measures drawn from the LNCVE, the proposed consent conditions, and the ELMP-WUG and ELMP-WA, that are intended to guide the avoidance, remediation, and mitigation of landscape, natural character, and visual effects of the project.

Because the ELMPs will be certified through the fast-track process, there will be no opportunity for the Council to confirm their suitability after consent is granted. It is therefore essential that the ELMP-WUG and ELMP-WA are sufficiently detailed and fit for purpose at the point of certification to ensure they can be effectively implemented.

As currently drafted, the ELMPs are not sufficiently well developed to ensure that the effects of the proposal on landscape, natural character, and visual amenity will be mitigated.

While the conditions allow for the use of certain mechanisms, these are not applied consistently within the ELMPs themselves. Such mechanisms include:

- a. Performance or environmental standards specifying the thresholds that must not be exceeded.

- b. Plan design standards requiring management plans to be prepared in accordance with recognised industry standards or templates.
- c. Mandatory requirements for implementing the management plans.
- d. Local authority monitoring requirements linked to the proposed condition set.

Rationalisation of the range of mechanisms utilised is required to achieve overall consistency of outcome. Analysis tables, comparing the mitigation recommendations contained in the LNCVE and the contents of the ELMP-WUG and the ELMP-WA, which lead to the development of the following recommendations, are contained in Appendix B and C, below.

The following comments and recommendations on the proposed conditions of consent and the ELMPs (ELMP-WUG and ELMP-WA) are intended to be read in conjunction with one another, as their effectiveness relies on their integration.

Recommendations for Alignment of Conditions and ELMPs within the Proposed Mitigation Framework

To strengthen the PMF and ensure it functions as an integrated package of measures, the recommended mitigation consent conditions and the ELMP-WUG and ELMP-WA should be amended to work in a coordinated and complementary manner.

By amending the PMF to provide a coordinated, enforceable, and outcome-focused framework, it will reduce uncertainty around what is required, ensure consistency in response, improve compliance monitoring capability, and give confidence that the project's effects on landscape, natural character, and visual amenity will be mitigated as intended.

Comments on The Draft Ecological and Landscape Management Plans ("ELMP-WA" & "ELMP-WUG")

The management of adverse effects on landscape character (including visual amenity) and natural character, and subsequent requirement for mitigation measures will be achieved through the implementation of two discrete management plans. These are the *Waihi Area Ecology and Landscape Management Plan* (ELMP-WA) and the *WUG Area Ecology and Landscape Management Plan* (ELMP-WUG).

As currently drafted, the ELMP-WUG and the ELMP-WA focus on ecological matters and in my opinion, **do not contain sufficient detail or information (from a landscape mitigation perspective) to allow them to be certified.**

The plans are limited to the identification of the proposed mitigation framework as an integrated package that combines landscape and ecological management measures into a coordinated approach. However, the plans primarily address ecological matters and are largely devoid of the detail necessary to identify the objectives, methods and performance criteria necessary to ensure that the mitigation requirements identified in the LNCVE are addressed in a manner that can be independently certified.

While the ELMPs, LNCVE, and the proposed conditions of consent collectively identify the required mitigation, the information is disparate, not well integrated or clearly articulated in a single document. Currently to form a clear understanding of these matters requires detailed reading and cross-referencing of all documents.

To improve clarity and effectiveness, the mitigation objectives for landscape, natural character, and visual amenity identified in the LNCVE should be explicitly incorporated into the ELMPs.

For the same reasons, the *performance standards* for ecological restoration planting should be expanded to clearly apply to screen planting (with appropriate amendments), and specific *performance standards* should be

developed to assess the effectiveness of wetland screen planting and the visual integration of modified landforms into the surrounding landscape.

While the proposed conditions are generally functional (subject to the amendments noted above), they are somewhat fragmented, and this is reflected within both the conditions themselves and the ELMPs. As a result, relevant requirements are dispersed across multiple documents, making it difficult to gain a clear and cohesive understanding of what is required, when it must occur, and how compliance will be assessed.

Recommended Amendments to the ELMPs

It is recommended that the ELMPs be revised to incorporate the detailed requirements and implementation triggers spread across the proposed conditions. This process of consolidation and rationalisation would provide a single, comprehensive source of guidance, making the mitigation framework clearer, easier to interpret, and more readily implementable.

Amendments to the mitigation strategy should be made in the following areas:

- 1) Inclusion of landscape, natural character and visual amenity specific objectives.
- 2) Integration of landscape, natural character and visual amenity mitigation recommendations into a consolidated checklist and include it in the ELMPs.
- 3) Revision of tables 2 & 3 of the ELMPs to improve the clarity, effectiveness, and ability to monitor the performance outcomes of the ecological and landscape mitigation framework; and
- 4) The development of landscape, natural character and visual amenity *performance standards*.
- 5) Amendments to the proposed conditions of consent.

These are discussed in further detail below:

1) Inclusion of Landscape, Natural Character and Visual Amenity Specific Objectives

The inclusion of specific objectives for landscape, natural character, and visual amenity into the ELMPs is essential to ensure that these values are clearly recognised and appropriately addressed alongside the ecological outcomes. At present, the objectives are solely ecological, which overlooks the distinct role that landscape form, visual integration, and natural character play in the overall success of the mitigation.

Explicit objectives for these matters will help guide the design, implementation, and assessment of measures such as earth shaping, screen planting, and visual buffers, and provide a clearer basis for evaluating whether the intended outcomes for landscape and visual effects are being achieved.

To better align with the requirements of the proposed conditions the following recommendation is made:

Section 1.3 of both the ELMP-WA and the ELMP-WUG be amended and expanded as follows. Original text is shown in *italics*, suggested insertions in *blue italics* and further explanatory drafting that is recommended is indicated in *green italics*:

1.3 PLAN OBJECTIVE

- The objective of this Plan is to identify how the potential adverse effects of the WNP (WUG) on the ecological, landscape, visual, natural character and biodiversity values within the WNP (WUG Area) and its surrounds will be avoided, remedied, mitigated and offset for*
- (a) Vegetation - To protect, restore, and enhance indigenous vegetation communities, ensuring their long-term viability and ecological function.*
 - (b) Habitats - To maintain and improve the diversity, quality, and connectivity of habitats to support the survival and movement of native species.*

- (c) *Herpetofauna (lizards and frogs) - To protect and enhance habitats for herpetofauna, ensuring no net loss of population viability and fostering recovery where feasible.*
- (d) *Bats - To protect roosting, foraging, and commuting habitats for bats, ensuring the maintenance and enhancement of population health and ecological function.*
- (e) *Avifauna - To protect, enhance, and create habitats that support the diversity, abundance, and breeding success of native bird species.*
- (f) *Landscape - To ensure that landform modification, earthworks, and associated infrastructure are designed and rehabilitated in a manner that integrates with the natural landform and landcover patterns, scale, and character of the surrounding landscape.*
- (g) *Visual amenity - To mitigate adverse visual effects on nearby residents, recreational users, and travellers by providing effective screening and visual integration of surface facilities and disturbed land, using context-appropriate planting and landform treatment; and*
- (g) *Natural character - To maintain or enhance the natural character of affected environments by ensuring that mitigation and restoration works support the legibility of natural processes, continuity of natural patterns, and perceived naturalness of the landscape, particularly within the Coromandel Forest Park.*

This Plan details the methods OGNZL will use to comply with the relevant conditions of the authorisations for the WNP.

The suggested amendments to the Plan's objectives strengthen the original wording by clearly identifying landscape integration, visual mitigation, and natural character as distinct areas of focus. While the original objective references landscape values, it does not specify how these would be addressed or the outcomes to be achieved. The inclusion of explicit objectives for landform integration, screening, and the maintenance of natural character ensures that these values are not inadvertently overlooked or assumed to be covered by ecological restoration alone. These amendments improve alignment with the findings of the LNCVE assessment and the relevant consent conditions and provide a clearer basis for the development of targeted *performance standards* and monitoring requirements within the ELMPs.

2) Integration of Landscape, Natural Character and Visual Amenity Mitigation Recommendations into a Consolidated Checklist for Inclusion in the ELMPs

Currently, the various landscape mitigation, visual mitigation and ecological mitigation recommendations are scattered across several documents, making them more difficult to access quickly.

To improve clarity, usability, and accountability, it is recommended that the mitigation recommendations identified in the Landscape, Natural Character and Visual Effects (LNCVE) and the various ecological assessments, be compiled into a single consolidated checklist within each ELMP as background information. This would provide a clear reference point for users of the document, ensuring that all required mitigation measures are readily accessible and traceable. A centralised checklist would assist consent holders, contractors, and Council(s) in understanding the full scope of mitigation commitments and their implementation requirements without needing to cross-reference multiple documents or sections, helping to ensure that a complete set of mitigation tasks is identified and included in Tables 2 and 3 of the ELMPs.

For clarity, references in this report to the mitigation recommendations in the LNCVE are to the measures proposed by the Applicant's landscape and ecological experts. References to recommended *performance standards* (further explained in 4) below) are to my recommendations, which are intended to establish clear, consistent, and measurable requirements to ensure that the Applicant's mitigation measures are implemented as intended.

Including such as checklist in the LNCVE would also support council officers in verifying compliance more efficiently. It would allow for straightforward auditing of whether the specified works have been undertaken in the appropriate locations and to the intended standards, enhancing transparency and accountability throughout the implementation process. This approach would ensure that the mitigation outcomes anticipated by the LNCVE assessment are not only understood but are also demonstrably delivered on the ground.

The checklist should include the following landscape, natural character and visual mitigation recommendations, which have been paraphrased from those contained in the LNCVE:

Area 1 – WUG	
Effect Avoidance or Mitigation Requirements	LNCVE Reference
Natural Character Natural character effects addressed through restoring tributaries and streams adjoining Forest Park within Willows Road site, to be undertaken in accordance with ecological recommendations.	Natural Character Effects, Executive Summary, LNCVE.
Vent Shaft and Drill Site Selection - Sensitive siting of surface elements and activities: - suitable from an ecological and landscape perspective - minimise disturbance - minimise adverse effects on existing native vegetation (enabled via wooden decks) - visually well contained (positioning and sensitive design, recessive colours and materials), - not highly visible from within or beyond Coromandel Forest Park and not visible from Wharekirauponga Walk. - Location of drill sites and additional helipad to avoid characteristic ridgelines and distinctive peaks. - Site suitability to include expert landscape input documented in a report submitted to the Hauraki District Council and Waikato Regional Council.	Pages 41, 43, 47, LNCVE.
Vegetation Clearance - Extent of vegetation clearance clearly identified prior to implementation to avoid accidental vegetation loss. - Tree removal restriction should not apply to removal of older pine trees present, particularly where this supports biodiversity outcomes.	Pages 41, 47, LNCVE.
Rehabilitation - Removal and rehabilitation of all drill sites, surface facilities, fencing and vent/egress surface infrastructure (vent stacks) back to their original form at closure in accordance with ecological recommendations. - Landform remediated to transition between localised modification and unaffected areas. - Rehabilitation of cleared areas reestablished with native flora and fauna at completion of mining activity within context of the surrounding nature conservation and recreation values of the Forest Park. - Rehabilitation effectiveness to be monitored and managed for a period of 2 years or more following closure to ensure success. - That planting adheres to an approved landscape rehabilitation strategy to ensure this achieves effective long-term outcomes.	Pages 41, 42, 43, 47, LNCVE.
Warm Spring Not identified as requiring mitigation in the LNCVE. However, warm spring compensation is identified in the ELMP-WUG.	

Area 2 – Willows Road Site	
Effect Avoidance or Mitigation Requirements	LNCVE Reference
Planting - WRS development sited to avoid potential adverse effects on identified wetlands. - Native vegetation within the majority of Unnamed Tributary 1 to be retained. Removal of riparian vegetation offset by enhancing Tributary 3. - Retain as much existing vegetation (including exotic shelterbelts, hedges and standalone trees and tree groups) outside disturbed areas as practicable during implementation as an established visual buffer from VS1 - VS4 and as visual screening of most surface infrastructure from VS2 (Willows Road).	Pages 16, 27, 29, 31, 46 LNCVE.

PROJECT MEMORANDUM



- Strengthen existing shelterbelts though additional planting managed through a rehabilitation strategy, including: - Native buffer planting along escarpment edges; - Native buffer planting and exotic screen shelterbelt planting beyond riparian margins where this may assist in reducing available views; - Wetland and terrestrial enhancement planting along the margins of the Mataura Stream within existing and proposed wetland areas. Partly to increasingly screen landform changes and integrate the proposed development from VS1 (End of Willows Road). - Buffer and riparian planting along the Mataura Stream and its tributaries to connect with Mataura Stream and provide visual screening of the surface infrastructure from neighbouring residents. Riparian planting to be at least 10 m in width in addition to the establishment of wetland species in small floodplain areas within the catchment. - Substantial expansion of terrestrial native forest cover along the true left of the Mataura Stream. - Restore vegetation loss during operation. - Fence off the tributaries to prevent stock access.	
Landform - Topsoil stockpiles to be in adjoining areas (to SFA and WRS) to ensure they remain well contained within the Willows Road site. - Stockpiles to be vegetated or grassed as soon as practicable after construction and to be maintained during operation to prevent erosion and for landscape and visual integration purposes. - Topsoil stockpiles to be formed to maintain microbial health to support vitality.	Pages 23, 25, 35 LNCVE.
Explosives Magazine - Proposed earth mounding associated with explosive magazine area to be hydroseeded once completed to ensure integration within surrounding areas of pasture. - Establish vegetation around the explosive magazine to reduce visibility of buildings.	Pages 32, 47 LNCVE.
Road Batters - Exposed batters supporting all access roads finished with rounded edges to integrate within the adjoining landform. - All exposed soil scarified and hydroseeded with pasture and/or native vegetation to assimilate within the surrounding land cover.	Pages 36, 46 LNCVE.
Rehabilitation - Temporary topsoil stockpiles removed at completion and final landforms restored and revegetated with grass or other vegetation to appear similar to integrate within the surrounding land use, ensuring that rural character is reinstated at completion. - WRS removed at project completion with landform recontoured to resemble its existing form and returned to grazing. - At completion, Unnamed Tributary 2 to be reinstated to remedy or mitigate potential adverse natural character effects. - Restore vegetation loss following operation.	Pages 27, 29, 30, 31, 37 LNCVE.
Signage Signage for entrance of site should be as discrete as practicable (adhering to NZTA sign requirements) and not visually dominate the entrance.	Pages 47 LNCVE.
Lighting - Lighting throughout project minimised as far as practicable so it meets permitted standards of zone. - Placement and direction of lights should avoid high points which are visible outside of the Willows Road site. - Light shields should be used where necessary, and all lightings shall be down facing to minimise effects on the night sky.	Pages 47 LNCVE.

All Waihi Area	
Effect Avoidance or Mitigation Requirements	Reference
- Vegetation removal replaced with enhancements to native vegetation and habitats within an adjoining Significant Natural Area and riparian planting along the Ruahorehore Stream and the Ohinemuri River. - Reinstate riparian and terrestrial vegetation along the margins of diverted streams. - Replace vegetation proposed to be removed in SNA T13UP166.	Landscape Effects, Executive Summary, & pages 69, 84, LNCVE.

PROJECT MEMORANDUM

Area 5 – GOP	
Effect Avoidance or Mitigation Requirements	Reference
Mining Operation Mining activity to occur from east to west to ensure any activity associated with the removal of landform typically remains concealed from wider views to the south-east of Waihi.	Page 60 LNCVE.
Planting - Retention of existing pine plantation and planting along the margins of the Ohinemuri River to screen views of Gladstone Pit, mitigating potential visual effects associated with the GOP during mining operation. - Establishment of riparian and terrestrial native planting along the margins of the Ohinemuri River to ensure potential views from surrounding rural areas towards the GOP remain well contained.	Landscape Effects, Executive Summary, & Page 60 LNCVE.
Rehabilitation - Progressive replacement of plantation pine with native vegetation during implementation of the tailing's facility. - On completion of GOP-tailings facility, final landform surrounding pit returned to pasture and native shrubs to further soften and assimilate the landform modification, ensuring rural land use is re-established. This may also be reinforced with opportunities for skink habitat and enhancement of the existing stream/ wetland area along the eastern slopes.	Pages 49, 50, 60, LNCVE.

Area 6 – NRS	
Effect Avoidance or Mitigation Requirement	Reference
Planting - Riparian and terrestrial planting reinstated and established along the margins of diverted stream and the Ohinemuri River and within intervening rural land during operation, to reinforce overall contribution to a vegetated landscape context. - Establish fast-growing native planting along the perimeter of the temporary stockpiles alongside Golden Valley Road to increasingly reduce available views. Planting intended to provide an almost complete visual screen within approximately 5 years of implementation.	Pages 60, 63, 64, 65, 69, LNCVE.
Landform Establish temporary stockpiles to mitigate glimpsed views along Golden Valley Rd, maintained in pasture to reduce raw worked appearance.	Pages 65, 73 LNCVE.
Rehabilitation - Removal of temporary stockpiles and round off final contour of the NRS at completion. - Final landform smoothed to remain subservient with the adjoining rounded landforms and pastoral and low shrub planting rural land cover re-established to assimilate within surrounding rural land use.	Page 62, 63, 64, 67, 69 LNCVE.

Area 7 – TSF3	
Effect Avoidance or Mitigation Requirement	Reference
Planting Terrestrial and riparian planting replaced along the perimeter of development to compensate for vegetation loss and increase connectivity.	Page 77, LNCVE.
Earthworks and Landform - Creation of diversion streams during initial stage TSF3 development to create a diverted corridor which follows the contour along the eastern edge, to ensure continued connection of SNA T13UP166 with the Ruahore Stream. - Temporary stockpiles grassed/hydroseeded during operation. Stockpiles intended to provide a visual buffer restricting views of construction of the tailing's storage facility from VS19 and VS20.	Page 76, 82, LNCVE.
Rehabilitation - Temporary stockpiles reduced or removed at completion and final landform rehabilitated. - On completion, all exposed areas and faces of TSF3 reinstated in pasture to resemble the adjoining tailings storage embankments and visually assimilate with adjoining rural areas. - TSF3 partially re-established with native shrubs on completed landform supporting the tailings storage. - Pasture on stockpile areas and associated rock embankments. - Facilitate reestablishment of internal wetland area along the margins of the stored tailing's areas/ponds with native wetland plants at completion.	Landscape Effects, Executive Summary, & Pages 76, 77, 84 LNCVE.

3) Revisions to the Table 2 and 3 of the ELMPs

While the ELMPs identify the intended integrated landscape and ecological response in Tables 2 and 3 of each document, the level of detail is insufficient to determine whether the proposed mitigation will achieve its intended outcomes.

To ensure the recommendations in the above table are appropriately captured, and to improve the clarity, effectiveness, and monitoring of outcomes under the ecological and landscape mitigation framework, it is recommended that columns 1 (Area) and 4 (Treatment) of Tables 2 and 3 in the ELMP-WUG and ELMP-WA be amended. Column 1 should be renamed to better reflect its purpose and include a more detailed description of the mitigation tasks required. Column 4 should be simplified by removing the various treatments currently listed and replacing them with references to a new set of performance standards to ensure consistency of approach and application. In addition, the condition references in the table titles should either be amended as shown in the example below or deleted.

The introduction of a set of *performance standards* (as recommended above) should clearly set out the purpose of the standard, how and where it is intended to be applied (applicability), define any technical terminology or standards used and identify a set of measurable performance requirements. These tables should function as practical implementation tools, specifying what standard is required to be achieved, when it will occur, and how it will be delivered and maintained.

Embedding implementation detail within *performance standards*, rather than within Tables 2 and 3 of the ELMPs or in the conditions of consent, will streamline the document structure, reduce duplication, and enable a more consistent and transparent basis for compliance monitoring. This approach will better align the ELMPs with the mitigation recommendations of the LNCVE and the proposed consent conditions, which will require further amendment as discussed below, and ensure that mitigation is implemented, monitored, and adapted in a structured and coordinated way.

The following provides an example of how this might be achieved in the ELMPs:

TABLE XX: MITIGATION TASKS (REFERRED TO IN CONDITION X.3.b)⁴

Area MITIGATION TASK AND PURPOSE	TRIGGER ACTIVITY	OBJECTIVE	Treatment RELEVANT PERFORMANCE STANDARD	TIMEFRAME REQUIREMENTS
<i>Description of the required mitigation task, including a brief description of its purpose.</i>	<i>The activity triggering the requirement for mitigation works</i>	<i>Identification of the key objectives that required mitigation</i>	<i>Identification of the relevant performance standard(s)</i>	<i>Timeframe required to ensure mitigation is in place when needed, including lead-in time for planting or earthworks, start dates, key implementation milestones, the expected timeframe for achieving effective outcomes, and the duration over which the mitigation must be maintained to remain effective.</i>

The following provides an example of how this approach might be applied in the ELMPs. The examples are intended as guidance only. This example addresses only the landscape, natural character, and visual mitigation

⁴ Note: Numbering used is cross referenced to recommended changes to the conditions below)

PROJECT MEMORANDUM

requirements, and is recommended as a guide for integration into the ELMPs in a form that is sufficiently detailed to enable certification, noting that this will also require integration and suitable cross referencing to the consent conditions.

TABLE XX: MITIGATION TASKS (REFERRED TO IN CONDITION X.3.b)

MITIGATION TASK AND PURPOSE	TRIGGER ACTIVITY	OBJECTIVES	RELEVANT PERFORMANCE STANDARD	TIMEFRAME REQUIREMENTS
Examples of Suggested Amendments to the ELMP-WA				
Screening of the Northern Rock Stack	> Northern topsoil stockpile.	> To screen views of the northern Rock Stack from public roads and adjacent private dwellings.	> Landscape & Screen Planting Performance Standard. > Landform Integration Performance Standard. > Grassing and Hydroseeding Performance Standard.	> Screen planting along Golden Valley Road to be established 6 months prior to the establishment of the northern topsoil stockpile. > Screen planting to be maintained for the duration of the consented activity. Planting may remain post closure.
Visual integration of TSF3 into the surrounding rural landscape	> Completion of the First lift of TSF3	> To minimise the extent of earthworks visible from public roads and adjacent private dwellings. > To restore the natural character values to the Ruahorehore Stream.	> Landform Integration Performance Standard. > Grassing and Hydroseeding Performance Standard. > Wetland Planting Performance Standard. > Natural Character Performance Standard.	> All exposed earthworks to be grassed within either 1 month of completion of a lift, or every 6 months (whichever is less). > Riparian planting to begin prior to completion of the first lift and be completed within 2 calendar years.
Examples of Suggested Amendments to the ELMP-WUG				
Visual mitigation of the ventilation shaft easē structures	> Installation of the easē and barriers	> To reduce the visual prominence of the easē in the Coromandel Forest Park	> Building Colour and Visual Integration Performance Standard.	> All disturbed areas to be replanted within 6 weeks of the installation of the easē
Screening of the Explosive Magazine at the Willows Road Surface Facilities Area	> Construction of the access road to the explosive magazine.	> To screen views of the explosive's magazine from public roads and adjacent private dwellings.	> Landform Integration Performance Standard. > Grassing and Hydroseeding Performance Standard. > Building Colour and Visual Integration Performance Standard.	> Earth bund to be constructed and grass established prior to construction of the magazine buildings. > Building to be painted within 1 month of construction > All screening to be maintained for the duration of the consented activity.

			> <i>Lighting Performance Standard</i>	> <i>Magazines to be removed and the building platforms and screen bunds to be re-integrated into the adjacent landform with 6 months of closure.</i>

4) The Development of Landscape, Natural Character and Visual Amenity Performance Standards

In conjunction with the above table, the recommended approach is that each of the ELMPs should include a set of specific *performance standards* to ensure that clear, measurable criteria are established, defining the expected outcomes of mitigation measures and how they are to be implemented.

To support the mitigation of landscape, natural character, and visual amenity effects, *performance standards* play a key role in translating the broad objectives outlined in Section 1.3 and Tables 2 and 3 of each ELMP into clear and actionable requirements. By expanding these high-level goals into specific methods and measurable criteria, *performance standards* provide a structured basis for implementation and enable consistent monitoring and evaluation. They establish benchmarks for success, define the consent holder's obligations, and ensure transparency and accountability in delivering the intended mitigation outcomes. In addition, they facilitate adaptive management by identifying when corrective actions are needed and assist the Council in verifying whether consent conditions are being met through its administrative and compliance functions.

Without such defined standards, it will be more difficult for the Council to determine whether the key mitigation outcomes, such as the successful integration of earthworks, the effectiveness of screen planting, or the maintenance of natural character, have been achieved. Clear and measurable *performance standards* will provide better certainty for compliance monitoring, support adaptive management where required, and ensure that the proposed mitigation delivers the intended outcomes over the duration of the consent.

The *performance standards* should build on the information in Tables 2 and 3 of the ELMP-WUG and ELMP-WA and be structured to provide a clear and enforceable framework for achieving the intended outcomes for landscape, natural character, visual amenity, and ecological mitigation. For ease of use, they should include a short introductory statement outlining their purpose, followed by specific, measurable criteria or procedural requirements that define what is to be achieved and how it will be implemented. *Performance standards* should reflect current best practice, include clearly defined triggers for when they take effect, and specify review requirements that outline how compliance will be monitored, reported, and verified.

Where relevant, they should also distinguish between the works that are required to mitigate temporary short-term effects, and those that are permanent measures (contributing to the proposed closure plan). As such associated timeframes and duration should be included, to ensure the associated mitigation action is effective when it is needed and remains effective over the duration it is required.

Each *performance standards* should:

1. Identify its specific purpose;
2. Identify its applicability
3. Define any specific terms and standards
4. Identify how that purpose will be achieved; and
5. Identify how success is measured.

The following *performance standards* are examples of what is considered to be required in support of the table identified in Section 3 (above) :

- i. Landform and Earthworks Integration Performance Standard:** To ensure all earthworks and constructed landforms integrate seamlessly with surrounding natural landforms, maintain landscape coherence and reduce visibility of modifications to achieve a natural appearance consistent with local geomorphology and landform patterns, supporting both visual amenity and natural character outcomes, the performance standard should:

 - a. Require earth shaping and contouring plans that deliver smooth, natural transitions between new or modified and existing landforms, with slope profiles, curvature, and gradients that integrate with surrounding topography.
 - b. Avoid creating visually incongruous landforms (e.g. unnatural mounds, benches, or cuttings) unless essential for functional or safety purposes.
 - c. Specify verification method during and after construction to confirm compliance with integration objectives.
 - d. Identify triggers for remedial action, including re-contouring, additional shaping, or supplementary mitigation measures, where performance targets are not met.
- ii. Grassing and Hydroseeding Performance Standard:** To ensure all areas disturbed by construction or operational activities, including topsoil stockpiles, are promptly stabilised through grassing or hydroseeding to achieve visual integration with the surrounding landscape, provide erosion control, and maintain sustainable ground cover, the performance standard should:

 - a. Require grassing or hydroseeding of exposed soil surfaces immediately upon completion of earthworks, in line with approved staging plans.
 - b. Specify soil preparation requirements, including scarifying, ripping (decompacting), and applying topsoil of sufficient depth and quality to support rapid, uniform grass growth.
 - c. Identify suitable grass species and seed mix specifications.
 - d. Establish post-installation inspection, verification and reporting requirements, such as a minimum of 80% strike within 20 days, no bare patches exceeding set thresholds, and absence of visible erosion from key viewpoints.
 - e. Identify triggers for remedial action, including reseeding or soil improvement, where targets are not achieved.
- iii. Lighting Performance Standard:** To minimise adverse visual effects and maintain rural character, all artificial lighting must be designed, placed, operated, and monitored to control light spill, avoid unnecessary visibility, and protect night-sky values, the performance standard should:

 - a. Reference applicable District Plan rules and ensure compliance with zone-specific lighting standards.
 - b. Require downward-directed, fully shielded luminaires with low-luminance output and appropriate kelvin (K) colour temperature ratings, meeting dark-sky compliance standards or equivalent.
 - c. Avoid placing luminaires in visually prominent locations (e.g. ridge tops, skylines) to reduce visibility from outside the site.
 - d. Limit operational hours near sensitive receptors and require automatic controls such as timers or motion sensors.
 - e. Prohibit upward light spill and require pre-installation light modelling to confirm compliance.
 - f. Establish post-installation inspection, verification and reporting requirements.
 - g. Identify triggers for remedial action, including adjustment or replacement of luminaires where compliance is not maintained.

- iv. Signage Performance Standard:** To ensure all signage aligns with the visual character of the landscape, is as discreet as practicable while meeting NZTA requirements, and avoids unnecessary visual prominence, the performance standard should:
- Reference applicable NZTA requirements and District Plan rules, ensuring lighting associated with signage meets relevant standards.
 - Require non-reflective materials and recessive colours that complement the surrounding landscape.
 - Specify approved signage locations with minimum setbacks from property boundaries and sensitive viewpoints.
 - Prohibit illuminated signage unless explicitly authorised and ensure any permitted lighting meets applicable standards.
 - Establish post-installation inspection, verification and reporting requirements
 - Identify triggers for remedial action, including modification or removal of signage where performance targets are not met
- v. Building Colour and Visual Integration Performance Standard:** To ensure all surface structures and buildings within the Coromandel Forest Park and at the Willows Road Portal site integrate visually with the surrounding environment, minimising contrast and maintaining natural character, the performance standard should:
- Avoid locating drill sites and helipads on characteristic ridgelines or distinctive peaks.
 - Minimise native vegetation clearance.
 - Require all structures to use recessive, natural colours and/or cladding with an LRV not exceeding 32.
 - Include rehabilitation requirements for drill and vent shaft sites, including removal of infrastructure and restoration to support native flora and fauna.
 - Establish post-installation inspection, verification and reporting requirements
 - Identify triggers for remedial action, including repainting, cladding replacement, or additional screening.
- vi. Ecological and Landscape Planting Performance Standard:** To ensure planting achieves intended natural character, visual, and ecological outcomes, integrating with surrounding vegetation patterns, the performance standard should:
- Align planting design with purpose (e.g. screening, restoration) and surrounding vegetation.
 - Specify species selection, location, extent, and configuration.
 - Define implementation requirements including handling, planting techniques, and timing.
 - Establish post-installation inspection, verification and reporting requirements (e.g. survival rate, canopy closure).
 - Identify triggers for remedial action, including replanting, enhanced maintenance, or replacement where targets are not met.
- vii. Screening Performance Standard:** To ensure adverse effects on landscape and visual amenity are screened or partially screened from key locations, the performance standard should:
- Align screen planting or bunding with existing vegetation and landform features.
 - Establish post-installation inspection, verification and reporting requirements (e.g. height, density, visual permeability, canopy closure timeframes) and monitoring from key viewpoints (public roads, walkways, and identified residential properties).
 - Identify triggers for remedial action, including replanting or reshaping bunds, where screening performance is inadequate.
- viii. Planting Maintenance and Monitoring Performance Standard:** To ensure planting establishes successfully and meets long-term natural character, visual, and ecological functions, the performance standard should:
- Set measurable establishment targets.
 - Require a documented maintenance schedule for at least five years.
 - Require regular monitoring and reporting.

- d. Establish post-installation inspection, verification and reporting requirements (e.g. fixed-point photography and mapped inspection locations).
- e. Identify triggers for remedial action, including pest control, replanting or enhanced maintenance where monitoring shows targets are not met.

- ix. Weed Management Performance Standard:** To ensure planting establishes without significant loss from competition from weeds, the performance standard should:
- a. Identify target weed species and methods of control.
 - b. Mandate control prior to planting and ongoing maintenance.
 - c. Establish post-installation inspection, verification and reporting requirements (e.g. photographic records).
 - d. Identify triggers for remedial action, including intensified weed control where thresholds are exceeded.

Note: A pest control plan has been prepared and submitted with the application.

- x. Topsoil Restoration Performance Standard:** To ensure disturbed areas are restored with topsoil suitable for long-term integration with surrounding landforms and ecosystems, the performance standard should:
- a. Require protocols for recovery, handling, and storage.
 - b. Specify minimum depth based on planting type.
 - c. Ensure placement under suitable conditions.
 - d. Require contouring to integrate with surrounding landforms.
 - e. Mandate weed control prior to placement.
 - f. Include measurable success indicators.
 - g. Establish post-installation inspection, verification and reporting requirements.
 - h. Identify triggers for remedial action, including additional topsoil placement, re-contouring, or reseeded where performance targets are not met.

While some of the information needed to develop the *performance standards* is already contained in various sections of each ELMP, the current focus is on ecological outcomes. Additional *performance standards* may be required to address the ecological mitigation requirements. These *performance standards* should then be developed accordingly, consistent with the following example (Planting Maintenance and Monitoring Standard):



PLANTING MAINTENANCE AND MONITORING – PERFORMANCE STANDARD

Purpose

To ensure planting is maintained successfully and delivers long-term natural character, visual screening, and ecological functions.

Applicability

All mitigation, restoration, compensation and screening plantings to be maintained within Area 1, 2, 3, 5, 6 & 7.

Definitions

Establishment period means Years 0 to 2 from practical completion of planting.

Maintenance period means Years 2 to 5 from practical completion of planting.

Canopy closure means the proportion of ground within a planted area that lies beneath a continuous layer of overlapping tree and shrub canopies. As the canopies grow together into a single mass, gaps shrink, reducing opportunities for weeds to establish. E.G 70% canopy closure means about 70% of the ground is under the canopy, with 30% beneath the open gaps.

Eco-sourced means seed or plants grown from seed (or cuttings) sourced from the Coromandel Ecological District.

Plant pest species means the plants declared as pest species in the Waikato Regional Pest Management Plan

PM² means plants per square meter (planting density).

Random fixed plot means randomly located 50m x 50m plots (or equivalent area) evenly distributed within an area of planting.

Performance

- a. Inspection Frequency: Each planted area shall be inspected every 6 months (minimum) during the establishment period and annually thereafter until the end of the maintenance period.
- b. Survival Rates: Each planted area must achieve a 90% survival rate after 1 year, at least 85% at 24 months, and be maintained at 80% or more through Year 5. Measure survival by plant counts. For planted areas up to 1.0 ha, carry out a full count. For areas larger than 1.0 ha, use random fixed plots that together cover at least 20% of the planted area if between 1Ha and 5Ha, 10% of the planted area if between 5Ha and 10Ha, and 1% for larger areas. Replacement planting shall be undertaken in all areas where the above survival rates are not achieved. Replacement planting shall be eco-sourced and comprise the same species mix that was originally planted. Where mass loss occurs, the species mix may be reviewed to ensure greater chance of survivability.
- c. Plant Health: During the establishment period, no more than 10% of plants may show signs of disease or stress at any inspection. Assess plant health by recording the proportion of plants with visible symptoms, such as yellowing, wilting, dieback, or pest damage. For planted areas up to 1.0 ha, inspect all plants. For larger areas, use random fixed plots that together cover at least 20% of the planted area.
- d. Plant Pest Species (Weed) Cover: ensure plant pest (weed) species do not always exceed more than XX percent cover within each planted area at any time. Inspect at every monitoring visit, map any plant pest occurrences, control them within 10 working days, and re-inspect within 30 working days to confirm control. Release weeds to 500mm around

each plant by hand or spot spray. Continue releasing until each plant is at least twice the height of the surrounding weeds or canopy closure has occurred.

- e. Canopy Closure: All planting shall achieve canopy closure percent canopy closure by Year 5. All screen planting shall achieve canopy ≥ 80 closure by year 3.*
- f. Browsing Damage: ≤ 10 percent of planted stems showing fresh browse at any inspection.*

Reporting

A site inspection and maintenance report shall be prepared for each site after each inspection, and shall include:

- Inspection details: date, inspectors, weather notes, areas inspected, methods used.*
- Plant survival: plant counts and calculated survival (%) by plant area.*
- Plant health: identification of plants showing stress or disease, symptoms observed, identification of affected species and locations.*
- Weed and pests: if any plant pest species were found and what control measures were initiated. Evidence of animal pest species observed and what control measure were undertaken.*
- Canopy cover: estimate of canopy cover at time of inspection.*
- Photographs: fixed-point photos taken at the same locations and bearings for comparative purposes.*
- Notes and observation: other notes and observations.*
- Required actions: identify actions required to achieve the required performance standards (e.g. replacement planting, weed control, etc).*

5) Amendments to the Proposed Conditions of Consent

If the above recommendations can be accommodated, then the conditions associated with the preparation and implementation of the ELMPs require rationalisation as follows.

Original text is shown in *italics*, suggested deletions in ~~*red strikeout italics*~~, recommended insertions in *blue italics*. Suggested amendments or inclusions are indicated in *green italics*. These (in *green*) provide guidance on the nature and intent of these amendments, however, due to their scope and complexity, the detailed drafting has not been included. This is because the level of detail required would necessitate more substantial input from the applicant to ensure accuracy, integration with the wider consent framework (conditions), amendments to the draft management plans, and alignment with their proposed implementation methods:

Ecological and Landscape Management Plans (ELMPs)

- X.1 The Consent Holder must prepare two Ecological and Landscape Management Plans (ELMPs):*
 - a. ELMP-WUG, covering the Wharekirauponga Underground Mine and associated works within the Coromandel Forest Park; and*
 - b. ELMP-WA, covering all other works within the Waihi area, including Areas 2, 3, 5, 6 & 7.*
- X.2 Each ELMP must describe the measures to avoid, remedy, or mitigate adverse effects on ecological values, landscape character, natural character, and visual amenity, consistent with the recommendations of the Landscape, Natural Character and Visual Effects Assessment (LNCVE) and relevant consent conditions.*
- X.3 Each ELMP must include:*
 - a. Objectives for ecological, landscape, natural character, and visual mitigation.*

- b. A table containing a list of all required mitigation tasks, their specific purpose, the associated trigger activity, specific task objectives, the applicable performance standard and timeframe requirements associated with the task.*
- c. A set of performance standards or measurable criteria for mitigation measures, including planting, earth shaping, screening, visual integration and [specific ecological requirements].*
- d. Details of the location, extent, and type of mitigation works, including lead-in times, implementation timeframes, and duration of maintenance.*
- e. Monitoring, reporting, and review procedures, including triggers for remedial action if performance standards are not met.*

X.4 The Consent Holder must implement the certified ELMP-WUG and ELMP-WA in full and must not depart from the certified versions unless an amendment is certified under Condition XX.

X.5 Each ELMP must be reviewed at least every five years and within three months of any verified complaint relating to ecological, landscape, natural character, or visual amenity effects. Any amendment must be certified by the Council prior to implementation in accordance with Condition C8.

Certification

X.6 The ELMP-WUG and ELMP-WA must be submitted to the Council for certification prior to the commencement of any works within the relevant plan area. Certification must confirm compliance with the requirements of these conditions and that the ELMP adequately addresses the potential adverse effects identified in the Assessment of Landscape, Natural Character and Visual Effects, and in the Assessment of Ecological Effects.

The following minor amendments to the existing conditions are also recommended for completeness (if not superseded by the above):

- a. **Condition C47A(v) and Condition C47B(vii)** should be amended as follows to better align with the current best practice approach to landscape mitigation and management:

...

v/vii. Landscape and Visual Mitigation Plan – which seeks to guide management of ~~visible change in the landscape~~ the physical, associative and experiential attributes of the landscape, including visual amenity.

- b. **Condition C49** should include a requirement for a suitably qualified landscape architect to provide input into the *Waihi North Ecological and Landscape Monitoring Report* on landscape and visual amenity related issues.

By 30 June each year the Consent Holder must engage a suitably qualified and experienced ecologist and a suitably qualified landscape architect to prepare an annual Waihi North Ecological and Landscape Monitoring Report that covers activities addressed in the WUG and Waihi Area ELMPs for the previous year...

- c. **Condition C60** should be amended to require that the implementation of the rehabilitation and closure plan is carried out in a manner consistent with, and following, the *performance standards* specified in the ELMPs:

No later than 30 days prior to the first exercise of this consent, the Consent Holder must submit a Rehabilitation and Closure Plan for certification under Condition C5.

Certification is required to verify that the Rehabilitation and Closure Plan:

- a. Includes actions, methods, and monitoring programmes as appropriate to meet the objective in Condition C61; ~~and~~*
 - b. Satisfies the requirements in Condition C62; ~~and~~*
 - c. Is consistent with the identified outcomes and performance standards contained in the ELMPs.*
- d. **Condition C61** should be amended to include the following additional landscape rehabilitation objectives:

The mine site landscape shall be shaped and planted in accordance with the Proposed Closure Concept Plans contained in Attachment 2 of the conditions (namely Attachment Fig. A Proposed Closure - WUG Surface Facilities Area and Fig. B Proposed Closure - GOP, NRS and TSF3 or their subsequent certified amendments).

And

The Proposed Closure Concept Plans shall include the integration of works undertaken through the ELMPs and meet the requirements of the relevant performance standards contained in the ELMPs (except for temporary mitigation works).

COMMENTS ABOUT THE REHABILITATION & CLOSURE PLAN

The concept for the proposed closure plan appears sound and, if implemented as intended, will suitably mitigate the effects of mining by restoring the landscape to a rural character. It is consistent with the intent of the existing closure plan and aligns with the current best practice. Having said that, the proposal remains conceptual, and a more detailed closure strategy will need to be prepared to support its implementation.

The Plan should better incorporate the restoration, and mitigation works recommended in the LNCVE and detailed in the ELMPs. To ensure this integration is effective, a stronger link is required between the ELMPs and the closure plan through the amendment of condition C61 (as above). In particular, the wetland restoration components associated with TSF3, the detailed design of which is yet to be undertaken, must be clearly reflected across both documents to support implementation and provide confidence in the long-term environmental outcomes of the closure process.

The performance standards recommended for inclusion in the ELMPs should also guide the Rehabilitation and Closure Plans by setting clear and consistent requirements for design and implementation. This can be achieved through amendments to Conditions C60 and C61 (as recommended in the above section), ensuring the closure plan is aligned with the outcomes of the ELMPs. In practice, this means mitigation and restoration measures must be incorporated into the closure plan and applied using the same standards. Aligning the closure plan with these performance standards will provide certainty in implementation and monitoring, with agreed outcomes and clear triggers for remedial action where targets are not met.

RECOMMENDATION

The recommendation is that the implementation strategy for mitigating landscape, natural character, and visual amenity effects is rationalised to ensure it is straightforward to implement, monitor, and evaluate, with success clearly measurable. To achieve this, the proposed conditions of consent and the ELMP-WUG and ELMP-WA require amendment to address the key concerns raised in the preceding comments, and either:

- a. resubmitted to the Panel for certification prior to the substantive decision being made, or
- b. included in the list of management plans to be certified by the Council under Condition C5, and conditions included as to what they should contain.

If this issue is successfully resolved, from a landscape, natural character and visual effects perspective, there is, in my opinion, no substantive reason why consent cannot be granted.

APPENDIX A

Qualifications and Experience

My full name is David Graham Mansergh. I am a qualified Landscape Architect and Recreation Planner. I am a Registered Member of the New Zealand Institute of Landscape Architects ("NZILA"). My qualifications include a Diploma in Parks and Recreation Management with Distinction (completed in 1988), a Bachelor of Landscape Architecture with Honours (completed in 1990) and a Master of Landscape Architecture (completed in 1992), all from Lincoln University, Canterbury.

I have been a Director of Mansergh Graham Landscape Architects Ltd since 1996. Before this, I was employed by the company as a landscape architect (1992 - 1996). I have also worked for the Department of Conservation (1986 – 1988) and before that, the Department of Lands and Survey (1985).

During my career, I have been involved in the preparation of and/or the peer review of a significant number of visual and landscape assessments for a wide range of activities and developments and have been involved in several plan changes in varying capacities including providing advice to Councils, applicants and submitters.

I have extensive experience in the assessment of effects in the extraction industries and have been involved in the review of several applications associated with mining in the Waihi area over the past two decades including the Favona mine application in 2002/3, a review of the application to vary the Martha Mine mining licence in 2010, review of the Martha Mine Landscape Plan in 2019, and review of the various tailing dam extension applications and crest rises between 2018 and 2020.

Other experience includes the assessment of, or review of, marine farms applications and extension applications, major port facilities, coastal developments, canal housing and marinas; residential, commercial and industrial buildings within the urban and rural environment; power stations, hydro dams, wind farms, solar farms, transmission lines, and substations; quarries and landfills; telecommunication masts; ski fields, gondolas and zip lines; dairy factories and poultry farms; and major roading infrastructure projects.

I was involved in the NZILA Landscape Planning Initiative, tasked with developing the 'best practice' approach for landscape and visual assessment in New Zealand and provided feedback on the more recent Te Tangi a te Manu Aotearoa New Zealand Landscape Assessment Guidelines.

I have presented evidence at Resource Management hearings before Councils, the (then) Planning Tribunal, and the Environment Court. I have acted as an Independent Commissioner at the Rangitikei District Plan hearings.

Code of Conduct

I confirm that I have read the Expert Witness Code of Conduct set out in the Environment Court's Practice Note 2023. I have complied with the Code of Conduct in preparing this evidence and agree to comply with it while giving evidence.

Except where I state that I am relying on the evidence of another person, this written evidence is within my area of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed in this evidence.

Previous Involvement with the Application

Prior to the acceptance of the application for the Fast Track Process, I was involved in the review of the draft technical documents (landscape, natural character and visual effects) submitted to the Hauraki District Council in support of the (then) consent application for the WNP by OGNZL.

As part of that process, I prepared three documents (memorandums) to the Hauraki District Council. A brief synopsis of the purpose of each document is as follows:

1. Memo 1 – Preliminary Review of the Landscape and Visual Effects Report (31 March 2022):

I undertook a preliminary desktop review of the Draft (pre-lodgement) Landscape, Natural Character and Visual Effects Assessment prepared by Boffa Miskell. This review evaluated whether the draft report included sufficient detail to enable an understanding and verification of the effects on landscape, natural character and visual amenity. While the methodology followed generally aligned with Te Tangi a te Manu guidance, I identified several areas requiring further detail, relating to landscape baseline description, perceptual and associative values, clarity of visual effects ratings, and the alignment of mitigation measures with identified effects.

2. Memo 2 – Section 88(3) Completeness Review (6 July 2022):

I reviewed the submitted application materials, including the landscape, natural character and visual effects components, to advise whether the application could be accepted under s88(3) of the RMA. Based on this review, I concluded that the application contained sufficient information to be formally received from a landscape and visual effects perspective, though this did not preclude further information being requested under s92.

3. Memo 3 – Section 92 Request for Further Information (1 August 2022):

Following a site inspection and detailed review of the lodged application materials, I prepared a s92 memo identifying specific areas where further information or clarification was needed to understand the effects of the proposal. This included requests for a more comprehensive analysis of perceptual and associative values, clarification on mitigation measures, improved ZTV mapping, better linkage between proposed changes and amenity values, and additional photomontages or visuals from key locations such as Black Hill and the T4 Trig Road area.

APPENDIX B: Comparison of the Mitigation Measures Contained in the ELMP-WUG and Those Recommended in the LNCVE.

ELMP-WUG Integrated Landscape and Ecological Response Plan Table 2			LNCVE	Overall Comments & Suggestions
What and why	How: Mitigation	Missing	Vegetation Removal/ Mitigation	
Vent Shaft Offset (Triggered by vegetation clearance for first vent shaft/pump test site in Area 1)	Broadleaf native forest offset planting for the loss of vegetation and habitat associated with the vent shaft raises in Area 1. Occurring along the existing bush edge of the CFP, to the north of the Willows Road Surface Facilities Area.	- Doesn't state how much offset planting will be implemented. - Objective description does not reflect Appendix 4A: vent shaft Site Selection Protocol, or Part D: Vegetation Remediation Plan on pages 57 and 65 - Landscape and Visual Amenity Values (included on page 59 of ELMP-WUG) have not been included in the 'Objective' column in Table 2 of the ELMP-WUG: Landscape and Visual Amenity Values Sites selected can be visually contained and assimilated into the environment so that they are reasonably difficult to see from public viewpoints. Once work has been completed, selected sites can be successfully rehabilitated to ensure that long term landscape and visual effects are avoided ⁵ .	<i>The sensitive siting of surface elements and activities within the extensive homogenous forest cover combined with their comparably diminutive scale will ensure the inherent characteristics and values of this outstanding natural landscape will remain⁶.</i> <i>Rehabilitation and Closure Activities, all drill sites, surface facilities, fencing and vent/egress surface infrastructure (vent stacks) will be removed and rehabilitated. Areas accommodating ventilation raises and shaft collars will be covered over and the areas occupied including raises and any accommodation/amenities removed or filled in and rehabilitated to support native flora and fauna. Such rehabilitation effectiveness will be monitored and managed for a period of 2 years or more following closure to ensure the success of such remediation⁷.</i> <i>...the exact locations of investigative drill sites and vent / egress are to be confirmed after further surveys have been carried out which confirm that identified sites are suitable from an ecological and landscape perspective. This includes expert landscape input to be documented in a report submitted to the Hauraki District Council and Waikato Regional Council⁸.</i> <i>Each site will be guided by a need to minimise adverse effects on existing trees, with activity enabled via wooden decks which will be completely removed and rehabilitated to re-establish as native forest at completion⁹.</i> <i>The extent of vegetation clearance is proposed to be guided by a need to minimise adverse effects on ecological and landscape values. Any tree removal restriction should not apply to the removal of older pine trees present in this area, particularly where this supports biodiversity outcomes. Once work is completed and areas vacated, areas where vegetation removal has occurred will be rehabilitated in accordance with ecological recommendations¹⁰.</i> <i>At the completion of the project, all activity including vent shaft raise sites will be rehabilitated back to their original form¹¹.</i> <i>Site selection of drill sites and additional helipad to avoid characteristic ridgelines and distinctive peaks</i>	Issues noted: • ELMP does not identify that the sensitive vent shaft site and drill site selection is required to minimise natural character, landscape character and visual effects at the Vent Shaft sites. • ELMP does not identify that the Vent Shaft offset planting is required to offset adverse natural character, landscape and visual effects associated with the Vent Shaft site works, drill site works and other infrastructure within the WUG area. • ELMP does not state intent to minimise native vegetation removal, avoid characteristic ridgelines and distinctive peaks, be visually contained and be of recessive materials/colours to assimilate into the environment to reduce visibility from within the Forest Park and public viewpoints, and so that the sites are not visible from the Wharekirauponga Walk. • ELMP does not include need for expert landscape input to be documented in a report submitted to the Hauraki District Council and Waikato Regional Council ²³ , to confirm sites are suitable from a landscape perspective. • ELMP does not provide detailed planting information (area, species, % mix, implementation) • ELMP does not include rehabilitation monitoring standards (effectiveness to be monitored and managed for a period of 2 years or more following closure to ensure the success of remediation). Can be addressed through: • Development of additional objectives and performance standards in the ELMP.

⁵ Page 59. ELPM-WUG

⁶ Landscape Effects, Executive Summary. LNCVE

⁷ Page 40. LNCVE

⁸ Page 41. LNCVE

⁹ Page 41. LNCVE

¹⁰ Page 41. LNCVE

¹¹ Para 4, Page 42. LNCVE

²³ Page 41. LNCVE

PROJECT MEMORANDUM



			Once investigation and shaft site works are completed, landform to be remediated to transition between localised modification and unaffected areas¹² Adoption of site selection process to minimise adverse effects on existing trees Cleared areas of vegetation to be replanted/ re-established at the completion of mining activity¹³ Site selection to minimise disturbance and ensure the sensitive design of isolated structures remains visually well contained during operation Surface infrastructure to be completely removed and disturbed areas to be fully rehabilitated at project completion¹⁴ ...due to the variance in landform and treatment of project-built features to minimise vegetation loss combined with recessive materials / colours, such opportunities primarily relate to proximate locations only¹⁵. Ensure vent shaft raises and associated temporary activities are not highly visible from within or beyond the Coromandel Forest Park¹⁶. Ensure the vent shaft raises and associated temporary activities are not visible from Wharekirauponga Walk¹⁷. Minimise native vegetation clearance within Coromandel Forest Park, ensuring any vegetation removal is clearly identified prior to occurring to avoid accidental vegetation loss¹⁸. Sensitive design of temporary buildings and structures (including evasé) using neutral and recessive colours which relate to their natural setting¹⁹. Ensure ability to effectively rehabilitate disturbed areas to ensure this will become reestablished within the context of the surrounding nature conservation and recreation values of the Forest Park²⁰. To ensure the certainty of these measures, it is recommended that a condition of consent requires that planting adhere to an approved landscape rehabilitation strategy to ensure this achieves effective long-term outcomes²¹. Biophysical aspects including important ecological values are primarily associated with native fauna and flora and will be protected through careful site selection of drill sites, vent shaft raises and associated activity²².	
Screen Planting (Triggered by commencement of	Screen planting to visually contain and assimilate landform	- Doesn't state how much screen planting.	During implementation, a small number of individual trees and tree groups will be removed to accommodate the main area of	Issues noted:

¹² Page 43. LNCVE

¹³ Page 43. LNCVE

¹⁴ Page 44. LNCVE

¹⁵ Para 2, Page 46. LNCVE

¹⁶ 7.7.2 Visual Effects, Page 47. LNCVE

¹⁷ 7.7.2 Visual Effects, Page 47. LNCVE

¹⁸ 7.7.2 Landscape Effects, Page 47. LNCVE

¹⁹ 7.7.2 Landscape Effects, Page 47. LNCVE

²⁰ 7.7.2 Landscape Effects, Page 47. LNCVE

²¹ Page 47. LNCVE

²² Page 86. LNCVE

PROJECT MEMORANDUM



Willows SFA construction)	modification and screen surface infrastructure area from Willows Road (including the unformed paper road) and adjoining rural dwellings.	- Doesn't state recommended plant species, spacing, etc - Doesn't indicate timeframe within % closure should be achieved.	surface infrastructure, located in the low-lying areas of the Willows Road site. ...retain as much existing vegetation as practicable during implementation and to restore vegetation loss during and following operation²⁴. ...several existing exotic shelterbelts, hedges and many standalone trees and tree groups within the pastoral areas of Willows Road site will be retained²⁵. ...substantial riparian planting will be provided along tributaries to the south of the main operation area, which will connect to the Mataura Stream and assist with visual screening of the surface infrastructure from neighbouring residents²⁶ Retain existing vegetation where practicable and introduce further buffer planting including planting adjoining scarps and intervening riparian areas²⁷ VS1: End of Willows Road - Mitigation which includes wetland and terrestrial planting along the margins of the Mataura River will increasingly screen landform changes and integrate proposed development within this view. VS2: Willows Road - Existing tree stands and vegetation will maintain a visual screening of most surface infrastructure from this location²⁸. W1: Willows Road (VS1 - VS4): - Maintain existing site vegetation where practicable as an established visual buffer - Establish proposed intervening buffer vegetation to contribute to containing and screening low-lying surface infrastructure²⁹ Retention of existing shelterbelts, trees and hedges in the Willows Road site outside disturbed areas where practicable Strengthening of existing shelterbelts through additional planting managed through an effective rehabilitation strategy. This shall encompass: -Native buffer planting along escarpment edges; -Native buffer planting and exotic screen shelterbelt planting beyond riparian margins where this may assist in reducing available views; -Enhancement planting of existing and proposed wetland areas; and -Riparian planting along the Mataura Stream where riparian areas enter the Willows Road site³⁰.	• ELMP does not provide a plan set clearly identifying vegetation proposed to be removed, and areas of existing vegetation to be retained for landscape and visual mitigation purposes within the Willows Road Site. • ELMP does not clearly identify all proposed visual screen planting types within the Willows Road Site (e.g. shelter belt, riparian, wetland). • ELMP does not identify that because Riparian, wetland and terrestrial planting along margins of Mataura River are relied on for visual screening and integration, these plant species must therefore be appropriate as visual mitigation screen planting (e.g. fast growing and capable of reaching a minimum % coverage and height within an appropriate timeframe). • ELMP does not provide detailed screen planting information (area, species, implementation and timeframe within which % closure and height of the screen planting should be met). Note: The gaps in the LNCVE visual assessment regarding visual effects associated with the Willows Road Site have been identified in Table 2 of this Memo. Can be addressed through: • Development of additional objectives and performance standards in the ELMP.
			Landform and Grassing ...temporary topsoil stockpiles covering an area of 2-3ha, which will be grassed or hydroseeded to prevent erosion. Stockpiles will also be used to form noise bunds	Issues noted: • ELMP does not include earthworks, landform and landcover landscape and visual effects mitigation measures.

²⁴ Page 27. LNCVE

²⁵ Page 27. LNCVE

²⁶ Page 27. LNCVE

²⁷ Page 30. LNCVE

²⁸ Page 31. LNCVE

²⁹ Page 35. LNCVE

³⁰ Page 46. LNCVE

PROJECT MEMORANDUM



			maintained in pasture grass during operation... <i>To support vitality, topsoil stockpiles will be formed to maintain microbial health and located in adjoining areas to ensure they remain well contained within the Willows Road site. This will result in temporary changes in landcover alongside localised landform disturbance which appears broadly consistent with surrounding rural activity once reinstated in pasture grass species.</i> <i>Temporary topsoil stockpiles hydroseeded and removed at completion to facilitate rehabilitation</i> <i>Final landforms restored to appear similar to existing and revegetated with grass or other vegetation to integrate within the surrounding land use³¹.</i> <i>Landscape rehabilitated to reinstate rural character at completion³²</i> <i>The proposed upgrade to the existing access to the magazine area will initially appear as a raw worked area which can be hydroseeded at completion to become increasingly integrated within surrounding areas of pasture³³.</i> W1: Willows Road (VS1 - VS4): <i>Vegetate or hydroseed noise bund associated with main site infrastructure as soon as practicable after construction³⁴</i> W2: Highland Road (VS 5): <i>Exposed batters supporting all access roads to be finished with rounded edges to integrate within the adjoining landform and all exposed soil scarified and hydroseeded³⁵</i> W3: State Highway 25 / Corbett Road (VS 6 to 9): <i>WRS removed at project completion with landform recontoured and returned to grazing³⁶</i> <i>Vegetate or hydroseed noise bund associated with main site infrastructure as soon as practicable after construction.</i> <i>Exposed batters supporting all access roads to be finished with rounded edges to integrate within the adjoining landform and all exposed soil scarified and hydroseeded with pasture and/or native vegetation to assimilate within the surrounding land cover.</i> <i>Hydroseed the proposed earth mounding associated with the explosive magazine and vegetate around the explosive magazine to reduce visibility of buildings.</i> <i>Signage for the entrance of the site should be as discrete as practicable (adhering to NZTA sign requirements) and not visually dominate the entrance³⁷.</i>	• ELMP does not include detail guiding cut and fill batter slopes, or landform contouring to integrate with adjoining natural landforms. • ELMP does not include re-grassing of exposed raw worked areas (WRS, topsoil stockpile, magazine area, road access batters, and other cut and fill batter slopes) during operation, and of final landform to ensure integration with existing surrounding pastoral grass landcover and reinstatement of rural character at completion. • ELMP does not identify that the proposed earth mounding associated with the explosive magazine must be hydroseeded and that vegetation be implemented around the explosive magazine. • ELMP does not identify that exposed soil to be hydroseeded with pasture and/or native vegetation as soon as practicable after construction. • ELMP does not provide detailed grassing/hydroseeding information (soil preparation, scarification, ripping, topsoil, seed mix, strike rate, implementation). • ELMP does not include detail to maintain microbial health of stockpiles during operation. • ELMP does not detail signage to be discrete as practicable (adhering to NZTA sign requirements) and not visually dominate the entrance. • ELMP does not detail that lighting shall be minimised as far as practicable, so it meets the permitted standards of the zone. That placement and direction of lights should avoid high points which are visible outside of the Willows Road site. That Light shields should be used where necessary, and all lightings shall be down facing to minimise effects on the night sky. Can be addressed through: • Addition of row(s) in Table 2 of the ELMP, (including mitigation task and purpose, trigger activity, objective, relevant performance standard and timeframe) to cover landform and grassing landscape and visual effects mitigation measures. • Development of <i>performance standards</i> in the ELMP. Note: Areas of rehabilitated re-grassing (Willows Rock Stack, Surface Infrastructure Area, Topsoil Stockpile and Magazine area) are not shown in Figure 2: Proposed Integrated Mitigation Planting Plan. These are shown on the Overview Proposed Closure Plan and Figure B Proposed Closure – GOP, NRS and TSF3 Plan. <i>Ensure the intention for these areas to be re-contoured and re-grassed at completion, to</i>

³¹ Page 29. LNCVE

³² Page 30. LNCVE

³³ Page 32. LNCVE

³⁴ Page 35. LNCVE

³⁵ Page 36. LNCVE

³⁶ Page 37. LNCVE

³⁷ Page 47. LNCVE

PROJECT MEMORANDUM



			<i>Lighting throughout the project will be minimised as far as practicable so it meets the permitted standards of the zone. Placement and direction of lights should avoid high points which are visible outside of the Willows Road site. Light shields should be used where necessary, and all lightings shall be down facing to minimise effects on the night sky³⁸.</i>	<i>integrate with the surrounding rural landform and landcover is included in the ELMP.</i>
Other Terrestrial Planting within OGNZL owned land (Triggered by commencement of Willows SFA construction)	To recreate complex broadleaf native forest habitat consistent with the CFP and extend habitat for native fauna. General ecological and landscape enhancement.	The ELMP- WUG does not appear to detail a proposed planting schedule including species list, spacing, implementation management etc. While it details examples in the tables and it details the existing environment in the body of the report, including typical species found in the CFP (page 73 of the WUG ELMP), it does not directly detail which terrestrial species are proposed to be planted and were.	<i>Substantial expansion of terrestrial native forest cover along the true left of the Mataura Stream³⁹</i> <i>Mitigation which includes wetland and terrestrial planting along the margins of the Mataura River will increasingly screen landform changes and integrate proposed development within this view⁴⁰.</i>	Issues noted: • ELMP does not identify that this planting is required to mitigate and offset adverse natural character, landscape and visual effects associated with the Willows SFA construction. • ELMP does not provide detailed planting information (area, species, % mix, implementation) • ELMP does not identify that the proposed terrestrial planting must be consistent with the CFP broadleaf forest habitat Can be addressed through: • Development of additional objectives and <i>performance standards</i> in the ELMP.
Buffer Planting of the Coromandel Forest Edge (subject to approval being provided by the Department of Conservation) (Triggered by commencement of Willows SFA construction)	To minimise edge effects, provide buffer between CFP and farmland and recreate and extend broadleaf native forest habitat consistent with CFP. General ecological and landscape enhancement.			
ELMP-WUG Integrated Landscape and Ecological Response Plan Table 3:			Overall Issues & Suggestions	
What and why	How: Mitigation	Missing	Vegetation Removal/ Mitigation	
Willows Rock Stack Offset (Triggered by Commencement of Construction works in Tributary 2)	To offset the reclamation of tributary 2 and protect and enhance aquatic ecological values.		<i>...most of the existing riparian vegetation along Unnamed Tributary 2 is proposed to be removed to accommodate the footprint of the WRS⁴¹.</i> <i>Once the project is complete and rehabilitation has been established, the WRS will be removed, and the landform reinstated to resemble its existing form⁴².</i> <i>W3: State Highway 25 / Corbett Road (VS 6 to 9): WRS removed at project completion with landform recontoured and returned to grazing⁴³</i>	Issues noted: • ELMP does not include detailed final contour plans to ensure the rehabilitated landform and landcover will resemble and enhance its existing form, the reinstatement of Tributary 2, with riparian planting and re-grassing of all other landform, to assimilate with the existing rural landscape. • ELMP does not provide detailed Tributary 2 planting information (area, species, % mix, implementation) Can be addressed through: • Development of additional objectives and <i>performance standards</i> in the ELMP.
Warm Spring Compensation (As per Vent Shaft Offset in Table 2 (to integrate with Vent Shaft offset planting))	To compensate for the loss of warm spring.	Inconsistency within the ELMP- WUG regarding the warm spring offset (table 3 refers to table 2 Vent Shaft Offset, while Figure 2 shows warm spring offset within Tributary 3 headwaters).	<i>Physical modification to waterbodies within the Coromandel Forest Park has primarily been avoided by the nature of underground mining however there is some assessed potential for indirect effects related to potential reduced surface water flows to occur as a result of groundwater drawdown, including the likely permanent loss of a single warm spring⁴⁴.</i> <i>Current modelling predicts underground mining may result in changes in the variable natural flow regime of some streams above the Wharekirauponga Underground Mine (WUG) as a result of groundwater drawdown</i>	Issues noted: • ELMP is inconsistent in the treatment of the Warm Spring Compensation. Tables 3 identifies that Warm Spring Offset be offset through Table 2 Vent Shaft Offset (broadleaf forest). However, Warm Spring offset is shown as part of the Tributary 3 riparian planting in the Proposed Integrated Mitigation Planting Plan. • ELMP does not reflect offset for the warm spring within the same catchment (Wharekirauponga Stream within CFP).

³⁸ Page 47. LNCVE

³⁹ Page 29. LNCVE

⁴⁰ Page 31. LNCVE

⁴¹ Page 27. LNCVE

⁴² Page 31. LNCVE

⁴³ Page 37. LNCVE

⁴⁴ Page 11. LNCVE

PROJECT MEMORANDUM



			during mining operations alongside the permanent loss of a single shallow 'warm spring' (ca. 19-20o C)⁴⁵. Except for potential indirect effects of reduced flows and including the loss of a single warm spring, resultant changes in stream flows remain within the natural range of low flows and will be difficult to discern in this context of their existing natural variability⁴⁶. The loss of the 'warm spring' along the margins of upper Wharekurauponga Stream is not identified as having any detrimental downstream effects on water quality or instream habitats. Whilst the loss of this input would be apparent at its source, this will not generate any actual or perceived impacts on wider associated changes on the natural characteristics or qualities of Wharekurauponga Stream or the surrounding Forest Park⁴⁷.	Riparian planting within this catchment would be the more appropriate offset to compensation for adverse natural character effects. - ELMP does not provide detailed planting information (area, species, % mix, implementation) for the warm spring compensation. Can be addressed through: - Remove 'As per Vent Shaft Offset in Table 2' and complete the 'Warm Spring Compensation' row for compensation within the Wharekurauponga Stream catchment (if possible), or as per Proposed Integrated Mitigation Planting Plan. - Development of additional objectives and performance standards in the ELMP.
Mataura Wetland (Triggered by Commencement of Construction works in Tributary 2)	Mataura wetland enhanced to improve ecological values. Stock exclusion. Weed and pest plant clearance and management.	It is unclear what extent of planting is proposed (just wetland edge, or more). Graphic on Figure 2: Proposed Integrated Mitigation Planting Plan shows entire wetland. The ELMP- WUG does not appear to detail a proposed planting schedule including species list, spacing, implementation management etc for the Mataura wetland.	...fencing off the tributaries to prevent stock access in addition to riparian planting at least 10 m in width in addition to the establishment of wetland species in small floodplain areas within the catchment⁴⁸. Reinforce riparian planting established and maintained along wider tributaries along Mataura Stream and identified wetland⁴⁹ Mitigation which includes wetland and terrestrial planting along the margins of the Mataura River will increasingly screen landform changes and integrate proposed development within this view. Enhancement planting of existing and proposed wetland areas⁵⁰;	Issues noted: - ELMP does not reflect that the LNCVE mentions multiple 'proposed wetland areas' at the Willows Road site. Only one wetland area has been identified on Figure 2: Proposed Integrated Mitigation Plan. Clarify whether there are further wetlands intended and clearly identify all wetlands at a more suitable scale on the plan in the ELMP. - ELMP does not identify that the Mataura Wetland is required to mitigate and/or offset adverse natural character, landscape and visual effects associated with the Willows Road site works on the Mataura River. - ELMP does not provide detailed wetland planting information (area, species, % mix, implementation) - ELMP does not identify that stock access to the wetlands must be excluded through fencing. - ELMP does not identify maintenance and monitoring of wetland planting (weed and pest plant clearance standards and ongoing maintenance and monitoring standards) Can be addressed through: - Clarity of plans in the ELMP - Development of objectives and performance standards in the ELMP.
Other Riparian Planting within OGNZL owned land (Triggered by Commencement	To protect and enhance aquatic ecological values and stream conditions		...effects on natural character are considered very low and readily addressed through proposed ecological mitigation which includes restoring tributaries and streams adjoining the Forest Park within the Willows Road site⁵¹.	Issues noted: ELMP does not identify that these planting areas are required to mitigate and offset

⁴⁵ Page 13. LNCVE

⁴⁶ Page 85, LNCVE

⁴⁷ Page 114. LNCVE

⁴⁸ Page 16. LNCVE

⁴⁹ Page 29. LNCVE

⁵⁰ Page 46. LNCVE

⁵¹ Natural Character Effects, Executive Summary. LNCVE

PROJECT MEMORANDUM



of activities within Area 2)	throughout stream and river network of the Ohinemuri River catchment		...the changes to existing streams alongside substantial additional riparian planting across the larger Willows Road site will be undertaken in accordance with ecological recommendations and will provide associated beneficial natural character outcomes. Such work has been sited to avoid potential adverse effects on identified wetlands and will restore natural character values apparent across a broader area encompassing tributaries and the margins of the Mataura Stream. At completion, Unnamed Tributary 2 will also be reinstated and remedy or mitigate potential adverse natural character effects in the longer term. ...it is proposed that approximately 10.9 ha. of the tributaries within this headwater catchment will be enhanced. This would include fencing off the tributaries to prevent stock access in addition to riparian planting at least 10 m in width in addition to the establishment of wetland species in small floodplain areas within the catchment⁵². ...native vegetation within the majority of Unnamed Tributary 1 will be retained. Such vegetation will be fenced and enhanced as part of the project through supplementary planting. Moreover, further substantial riparian planting will be provided along tributaries to the south of the main operation area, which will connect to the Mataura Stream and assist with visual screening of the surface infrastructure from neighbouring residents⁵³. The removal of riparian vegetation resulting from surface infrastructure within Willows Road is proposed to be offset by enhancing a sub-catchment to the north within the Willows Road site (Tributary 3). This will entail fencing off the tributaries to prevent stock access in addition to riparian planting of at least 10 metres in width and the establishment of wetland species in small floodplain areas within the catchment⁵⁴. In addition to the above, a substantial amount of additional riparian planting is proposed along the margins of the Mataura Stream which extends into adjoining land⁵⁵. Approximately 900 m of additional riparian enhancement planting would be provided in this area⁵⁶.	adverse natural character, and landscape effects associated with the Willows Road Site. - ELMP does not provide detailed riparian planting information (area, species, % mix, implementation) Can be addressed through: - Development of additional objectives and performance standards in the ELMP
Other Riparian Planting on land owned by others (Triggered by Commencement of activities within Area 2)	To protect and enhance aquatic ecological values and stream conditions throughout stream and river network of the Ohinemuri River catchment.			

⁵² Page 16. LNCVE

⁵³ Page 27. LNCVE

⁵⁴ Page 27. LNCVE

⁵⁵ Page 27. LNCVE

⁵⁶ Page 27. LNCVE

PROJECT MEMORANDUM

APPENDIX C: Comparison of the Mitigation Measures Contained in the ELMP-WA and Those Recommended in the LNCVE.

ELMP-WA Integrated Landscape and Ecological Response Plan (Table 2)			LNCVE	Review Notes
What and why	How: Mitigation	Missing	Mitigation Recommendations	
Lizard Habitat Enhancement Area (Triggered by vegetation removal in the TSF3)	Creation of 4.04ha adjacent to SNA 166 (to the north of the southern fragment). General ecological and landscape enhancement.	While examples of plant species are given, no proposed plant list, spacings, management etc. Not specific regarding stock exclusion, pine tree removal, weed and pest control.	<i>Vegetation removal will be replaced with enhancements to native vegetation and habitats within an adjoining Significant Natural Area...⁵⁷.</i>	Issues noted: - ELMP does not identify that these planting areas are required to mitigate and offset adverse natural character, and landscape effects associated with TSF3 on SNA166 and other indigenous vegetation. - ELMP does not provide detailed planting information (area, species, % mix, implementation) Can be addressed through: - Development of additional objectives and performance standards in the ELMP.
Waihi Biodiversity Offset Planting Area (Triggered by vegetation removal in TSF3)	17.5ha of new planting in, adjacent to, and in the wider landscape of the SNA to offset loss of 8.3ha of SNA vegetation and 20 ha of planting in wider WNP area to offset loss of 10.1 ha of site-wide indigenous vegetation. General ecological and landscape enhancement.	This area name does not match any of the labels in the key in Figure 2. Different names make it unclear where the described planting areas are occurring on the ground. Unclear where both the 17.5ha and 20ha of planting will be occurring. Not clearly indicated in Figure 2.		
Waihi Biodiversity Offset Enhancement Area (Triggered by vegetation removal in TSF3)	20 ha of enhancement actions within pine-dominant areas of SNA 166 to offset loss of 1.2 ha of non-SNA native vegetation. General ecological and landscape enhancement.			
TSF Buffer Area (Triggered by vegetation removal in TSF3)	As a buffer along the edge of SNA 166 to mitigate edge effects following vegetation removal. General ecological and landscape enhancement.			
Replacement Planting Zones 1, 2 and 4 (Triggered by vegetation removal)	Replacement planting for removal of unprotected		GOP <i>Once tailings are accommodated, the final landform surrounding the pit will be returned to pasture and native shrubs which may further soften and assimilate the extent to</i>	Issues noted: ELMP does not identify that these planting zones are required to mitigate and offset

⁵⁷ Landscape Effects, Executive Summary. LNCVE

PROJECT MEMORANDUM



in GOP, NRS, or TSF3)	planted vegetation (including pine). General ecological and landscape enhancement.		<i>which landform modification will remain apparent in the long term. This may also be reinforced with opportunities for skink habitat and enhancement of the existing stream / wetland area along the eastern slopes⁵⁸.</i> <i>...vegetation removed during the mining and subsequent tailings operations to be re-established with pasture and native shrubs following completion to limit the potential for any longer-term adverse effects⁵⁹.</i>	adverse natural character and landscape effects associated with the Waihi Area. • ELMP does not provide detailed planting information (area, species, % mix, implementation) Can be addressed through: • Development of additional objectives and performance standards in the ELMP.
Replacement Planting Zones 5-9 (Triggered by vegetation removal in GOP, NRS, or TSF3)	To provide ecological buffers to existing ecological values. General ecological and landscape enhancement.		NRS <i>...further terrestrial planting will be established along the margins of the Ohinemuri River and within intervening rural land during operation to reinforce the overall contribution to a vegetated landscape context containing mining activity⁶⁰</i>	
Replacement Planting Zone 3 (Triggered by commencement of GOPTSF)	Existing pines retained while GOP is in operation. Removal of pines and implementation of indigenous replacement planting within first planting season following completion of surface mining in GOP. General ecological and landscape enhancement.		<i>...retention of the existing pine plantation will continue to screen views of Gladstone Pit with any visibility limited to glimpse views seen between the trunks of retained trees along the south-west edge of the mine and subsequent tailings facility⁶¹.</i> <i>Progressive replacement of pine with native vegetation following landform modification during mining activity⁶²</i> <i>Maintain established buffer of pine trees during mining operation⁶³</i> <i>Retain existing areas of plantation pine during mining operation as part of maintaining an existing visual screen⁶⁴</i> <i>Retain existing areas of plantation pine during mining operation as part of maintaining an existing visual screen⁶⁵</i> <i>Progressive replacement of pine with native vegetation following landform modification during mining activity⁶⁶</i> <i>To effectively mitigate the potential for visual effects associated with the GOP during mining operation, remaining area of areas of plantation pine including established pine trees on Winner Hill outside the footprint of the mine will be retained⁶⁷.</i> <i>8.5 Gladstone Landscape Mitigation</i> <i>Following mining and during implementation of the tailing's storage facility, existing pine trees will be progressively removed and re-established with native vegetation⁶⁸.</i>	Issues noted: • ELMP does not identify that the reason for the retention of the existing plantation pines is to screen the GOP works from view, to mitigate the potential for visual effects associated with the GOP during operation from outside the footprint of the mine (from Ohinemuri River track, Heath Street, Clark Street and Gilmour Lake Reserve). • ELMP does not provide detailed planting information (area, species, % mix, implementation) Can be addressed through: • Development of additional objectives and performance standards in the ELMP.
Replacement Planting Zone 10 (Triggered by vegetation removal in GOP, NRS, or TSF3)	General ecological and landscape enhancement.		NRS <i>...further terrestrial planting will be established along the margins of the Ohinemuri River and within intervening rural land during operation to reinforce the overall</i>	Issues noted: • ELMP does not identify that these planting zones are required to mitigate and offset adverse natural character and landscape effects associated with the Waihi Area.

⁵⁸ Page 49. LNCVE

⁵⁹ Page 49. LNCVE

⁶⁰ Page 60. LNCVE

⁶¹ Page 54. LNCVE

⁶² Page 51. LNCVE

⁶³ Page 52. LNCVE

⁶⁴ Page 56. LNCVE

⁶⁵ Page 57. LNCVE

⁶⁶ Page 58. LNCVE

⁶⁷ Page 60. LNCVE

⁶⁸ Page 60. LNCVE

PROJECT MEMORANDUM

			contribution to a vegetated landscape context containing mining activity⁶⁹ TSF3 <i>Terrestrial and riparian planting will be replaced along the perimeter of the development to compensate for any vegetation loss and increase connectivity⁷⁰</i>	• ELMP does not provide detailed planting information (area, species, % mix, implementation) Can be addressed through: • Development of additional objectives and performance standards in the ELMP.
Screen Planting	Establishment of fast-growing native planting to screen temporary stockpiles and Northern Rock Stack from Golden Valley Road.	- Doesn't state how much screen planting. - Doesn't state recommended plant species, spacing, etc - Doesn't indicate timeframe within % closure should be achieved. - Doesn't state that plantation pine on Winner Hill is required to be retained for screening purposes.	GOP <i>During operation, the retention and enhancement of a periphery of vegetation including plantation pine on Winner Hill and expanded native planting along the margins of the Ohinemuri River ensures potential views from surrounding rural areas towards the GOP remain well contained⁷¹.</i> NRS <i>Native planting established along perimeter of temporary stockpiles...⁷²</i> <i>Native planting established along the roadside and enclosing temporary stockpiles will increasingly reduce available views⁷³</i> <i>This viewing area is predominantly limited to transient users of Golden Valley Road passing near the proposed NRS and approximately eight existing rural dwellings within approximately 800 metres, five of which are owned by OGNZL. Views from existing and potential future dwellings to the north-east of the Site are typically orientated to the north and away from the NRS and partially obscured beyond intervening vegetation. The most sensitive private views are likely to occur from a dwelling recently completed to the north-east of the proposed NRS, from which oblique filtered views of temporary grassed topsoil stockpiles constructed adjacent to Golden Valley Road may be visible and obstruct views of ongoing operation within the site⁷⁴.</i> <i>Once temporary stockpiles are established in pasture this will reduce their raw worked appearance. Following this, planting introduced along the margins of the stockpiles will increasingly limit the availability of views including the subsequent rehabilitation of the NRS in the short to medium term, providing an almost complete visual screen within approximately 5 years of implementation⁷⁵.</i> <i>NRS stockpiles and associated screen planting mitigates glimpse views along Golden Valley Rd⁷⁶.</i> <i>Establishment of fast-growing native planting along the periphery and margins of Golden Valley Road⁷⁷;</i> <i>Maintaining temporary stockpiles in pasture to reduce views of the ongoing raw worked appearance of the NRS⁷⁸;</i>	Issues noted: • ELMP does not provide a plan set clearly identifying vegetation proposed to be removed, and areas of existing vegetation to be retained for landscape and visual mitigation purposes within the Waihi Area. • ELMP does not clearly identify all proposed visual screen planting types within the Waihi Area (e.g. shelter belt, riparian, wetland). • ELMP does not provide detailed planting information (area, species, implementation and timeframe within which % closure and height of the screen planting should be met). • ELMP does not identify any screen planting within the TSF3 area. Can be addressed through: • Development of additional objectives and performance standards in the ELMP. • Development of additional plan sets identifying vegetation proposed to be removed and areas of vegetation to be retained for landscape and visual mitigation purposes within the Waihi Area. Note: The gaps in the LNCVE visual assessment regarding visual effects associated with the NRS and TSF3 areas (including temporary stockpiles) have been identified in Table 2 of this Memo and are described below. Gaps in LNCVE Visual Assessment: NRS and Stockpiles – Golden Valley Road (VS15) Assessment from the 3 (of 8) private properties (non OGNZL ownership) within 800m of the Stockpiles/NRS is missing from the LNCVE, so it is difficult to assess whether the magnitude of effect from Golden Valley Road (VS15) and therefore any subsequent additional proposal of mitigation screen planting has been captured in the LNCVE. TSF3 – Trig Road North The LNCVE states that the TSF3 stockpiles provide a visual buffer restricting views of construction of the tailing's storage facility. However, unlike the Golden Valley Road stockpiles, no mitigation screen planting has been proposed to screen the stockpiles and TSF3 from view from Trig Road.

⁶⁹ Page 60. LNCVE

⁷⁰ Page 77. LNCVE

⁷¹ Landscape Effects, Executive Summary. LNCVE

⁷² Page 63. LNCVE

⁷³ Page 64. LNCVE

⁷⁴ Page 65. LNCVE

⁷⁵ N1: Golden Valley Road (VS15), Page 65. LNCVE

⁷⁶ N1: Golden Valley Road Visual Effects Table, Page 73. LNCVE

⁷⁷ 9.5 NRS Landscape Mitigation, Page 69. LNCVE

⁷⁸ 9.5 NRS Landscape Mitigation, Page 69. LNCVE



			TSF3 Private Viewpoints Movement of machinery and the creation of large stockpiles of inert material will contrast with more verdant rural and pastoral areas, often framed within mature trees and shelter planting. Notwithstanding this, such activity will be temporary and shift across the site as the resulting landform is gradually and permanently changed then rehabilitated to support revegetation. An initial worked appearance will remain until the final landform is completed and rehabilitated⁷⁹. 8 private viewpoints were visited as part of undertaking the assessment and to assist understanding of the nature of available views within identified viewing areas. The locations of private viewpoints assessed with respect to TSF3 are included in Figure 20⁸⁰. T1: Waihi Beach Road: <i>This viewing area obtains potential views of TSF3 from Waihi Beach Road including nine rural dwellings⁸¹.</i> T2: Trig Road North (VS19 and VS20) <i>As with views from Waihi Beach Road, views from dwellings are more typically enclosed by vegetation, however some views of TSF3 may be available, particularly from dwellings located on localised high points and orientated to have increased visibility of surrounding areas. Five rural dwellings (three of which are owned by OGNZL) are identified in this viewing area from which two representative public viewpoints have been identified...⁸²</i> <i>Any glimpse views which remain are limited to views from elevated dwellings with areas of modified landform becoming integrated within a wider working rural landscape which remains apparent⁸³.</i> T1: Waihi Beach Road (VS18) <i>Partial and glimpse views from adjoining rural dwellings and roads⁸⁴</i> T2: Trig Road North (VS19 and VS20): <i>Views from adjoining dwellings predominantly remain enclosed within established areas of vegetation⁸⁵</i> <i>Views from rural dwellings and rural road</i> <i>Stockpiles constructed at the commencement of the project will be grassed and provide a visual buffer restricting views of construction of the tailings storage facility⁸⁶</i>	While private viewer locations have been identified on Figure 20 of the LNCVE, the LNCVE visual effects assessment from these locations is unclear and somewhat contradictory. Stating in the body of the T2 (VS19 and VS20) LNCVE analysis that from some dwellings on localised highpoints may have increased visibility of surroundings, while in the visual effects table, views from dwellings are enclosed by vegetation. The magnitude of visual effect from these private viewer locations is unclear. Can be addressed through: Given the 'moderate-high cumulative visual effects' associated with the proposed TSF3 works identified in the cumulative effects section of the LNCVE, there may need to be additional mitigation screen planting to mitigate visual effects of the TSF3 and associated TSF3 stockpiles from the nearest private viewer locations identified on Figure 20 of the LNCVE, and from public viewer locations along Trig Road North and Waihi Beach Road. If additional screen planting is required it should be included as an additional row (Screen Planting – TSF3) in Table 2, and Figure 2: Proposed Integrated Mitigation Planting Plan should be updated to show and label this additional screen planting.
			Landform and Grassing GOP	Issues noted: • ELMP does not include earthworks, landform and landcover landscape and visual effects mitigation measures.

⁷⁹ Page 76. LNCVE

⁸⁰ Page 79. LNCVE

⁸¹ Page 79. LNCVE

⁸² Page 80. LNCVE

⁸³ Page 81. LNCVE

⁸⁴ Page 81. LNCVE

⁸⁵ Page 82. LNCVE

⁸⁶ Page 82. LNCVE



			...vegetation removed during the mining and subsequent tailings operations to be re-established with pasture and native shrubs following completion to limit the potential for any longer-term adverse effects⁸⁷. ...landcover rehabilitated as pasture which will limit potential longer-term landscape character effects⁸⁸. At completion, the final lowered landform will be established in pasture and as appropriate, native shrub planting, ensuring complementary rural land use is re-established and long-term impacts remain largely benign in the context of the adjoining mining activity and the surrounding rounded and vegetated volcanic hills which will continue to characterise this area⁸⁹. Lowered landform reinstated in pasture and native shrubs as part of site rehabilitation at project closure⁹⁰ Reinstatement in pasture and native shrubs as part of the site rehabilitation⁹¹ Rehabilitate existing rural land use at completion⁹² Reinstatement in pasture and native shrubs as part of the site rehabilitation⁹³ 8.5 Gladstone Landscape Mitigation ...the mining activity will occur from east to west to ensure any activity associated with the removal of landform typically remains concealed from wider views to the south-east of Waihi⁹⁴. The final landform surrounding the pit will be re-established in pasture and native shrubs therefore offering further opportunities to assimilate the modified landform within a working rural landscape to reduce the potential for any longer-term significant adverse effects⁹⁵. NRS Final landform smoothed to remain subservient with the adjoining rounded landforms and revegetated⁹⁶ Pastoral rural land cover re-established at completion⁹⁷ Temporary stockpiles maintained in pasture and removed at completion⁹⁸ Landscape rehabilitated to reinstate rural character at completion⁹⁹	• ELMP does not include detail guiding cut and fill batter slopes, or landform contouring to integrate with adjoining natural landforms. • ELMP does not include re-grassing of exposed raw worked areas (topsoil stockpiles, TSF3, and other cut and fill batter slopes) during operation, and of final landform to ensure integration with existing surrounding pastoral grass landcover and reinstatement of rural character at completion. • ELMP does not identify that exposed soil to be hydroseeded with pasture and/or native vegetation as soon as practicable after construction. • ELMP does not provide detailed grassing/hydroseeding information (soil preparation, scarification, ripping, topsoil, seed mix, strike rate, implementation). • ELMP does not include detail to maintain microbial health of stockpiles during operation. • ELMP does not identify that GOP mining is to occur from east to west to ensure activity associated with removal of landform is concealed from wider views to the south-east of Waihi. • ELMP does not include TSF3 stream diversion designed to ensure continued connection between SNA T13UP166 with the Ruahorehore Stream Can be addressed through: • Addition of row(s) in Table 2 of the ELMP, (including mitigation task and purpose, trigger activity, objective, relevant performance standard and timeframe) to cover landform and grassing landscape and visual effects mitigation measures. • Development of <i>performance standards</i> in the ELMP.

⁸⁷ Page 49. LNCVE

⁸⁸ Page 50. LNCVE

⁸⁹ Page 50. LNCVE

⁹⁰ Page 51. LNCVE

⁹¹ Page 51. LNCVE

⁹² Page 52. LNCVE

⁹³ Page 58. LNCVE

⁹⁴ Page 60. LNCVE

⁹⁵ Page 60. LNCVE

⁹⁶ Page 63. LNCVE

⁹⁷ Page 64. LNCVE

⁹⁸ Page 64. LNCVE

⁹⁹ Page 64. LNCVE



			<i>Reinstated in pasture at completion to assimilate within surrounding rural land use at completion¹⁰⁰</i> <i>Removing and rehabilitating areas accommodating temporary stockpiles and round off the final contour of the NRS and reinstate with pasture at project closure¹⁰¹.</i> TSF3 <i>Once completed, the faces of the TSF3 will be reinstated in pasture to become visually assimilated with adjoining rural areas and mitigate potential for any longer term significant adverse effects¹⁰².</i> <i>At completion the final surface will predominantly be established in pasture and appear integrated within the existing broader context which includes existing tailings storage facilities and an established vegetated backdrop¹⁰³.</i> <i>All exposed areas will be re-established in pasture and resemble the adjoining tailings storage embankments and rehabilitated to integrate the proposed landform disturbance within surrounding areas of pasture against the larger vegetated backdrop¹⁰⁴.</i> <i>Once established, the landcover in this area will partially be re-established with native shrubs implemented on the completed landform supporting tailings storage and pasture on stockpile areas and associated rock embankments¹⁰⁵.</i> <i>Proposed diversion streams through TSF3 will occur during the initial stage of this development and requires earthworks to create a diverted corridor which follows the contour along the eastern edge. Initially, parts of the stream diversion will appear more engineered in the context of existing stream channels which follow the floor of the gully. Many of the existing channels proposed for diversion flow through rural activity and linear drains along field boundaries. Once created, stream diversion will continue to connect SNA T13UP166 with the Ruahorehore Stream. The resultant landform modification will gradually reinforce and enhance the surrounding landcover and increasingly appear contained along a larger more vegetated, elevated, linear, and undulating backdrop</i> <i>At completion, resultant embankments will be reinstated in pasture to support ongoing future rural land use and assist with the landscape's ability to absorb further modification¹⁰⁶.</i> <i>Temporary stockpiles hydroseeded during operation</i> <i>Final landform rehabilitated with pasture at completion¹⁰⁷</i>	

¹⁰⁰ Page 67. LNCVE

¹⁰¹ 9.5 NRS Landscape Mitigation, Page 69. LNCVE

¹⁰² Landscape Effects, Executive Summary. LNCVE

¹⁰³ Page 73. LNCVE

¹⁰⁴ Page 76. LNCVE

¹⁰⁵ Page 76. LNCVE

¹⁰⁶ Page 76. LNCVE

¹⁰⁷ Page 77. LNCVE

PROJECT MEMORANDUM



			<i>Temporary stockpiles reduced or removed and affected areas reinstated in pasture¹⁰⁸</i> <i>At completion, TSF3 and the stockpile will be re-established in pasture to complement the larger vegetated backdrop and ensure the extended tailings storage facilities recede into this pastoral landscape against a larger existing vegetated backdrop.</i> <i>Once formed, this will be re-established in pasture and become readily assimilated within the adjoining undulating rural landforms¹⁰⁹.</i> <i>Temporary stockpiles maintained as pasture during operation</i> <i>Final landform rehabilitated in pasture against a larger vegetated backdrop</i> <i>Temporary stockpiles reduced or removed and affected areas reinstated in pasture</i> <i>Final landform rehabilitated with pasture against a larger vegetated backdrop</i> <i>Rehabilitated in pasture against a larger vegetated backdrop¹¹⁰</i> <i>Ensure stockpiles are hydroseeded with pasture to resemble adjoining rural areas during operation¹¹¹</i> <i>Re-establish the final embankment and stockpile in pasture and facilitate reestablishment with native wetland plants within stored tailings areas at completion¹¹²</i>	
Wetlands			<i>The final surface of the embankment will predominantly be re-established in pasture and equally support native wetland species on the rehabilitated tailings pond¹¹³.</i> <i>Internal wetland areas will also establish along the margins of the resulting tailings ponds¹¹⁴.</i> <i>Re-establish the final embankment and stockpile in pasture and facilitate reestablishment with native wetland plants within stored tailings areas at completion¹¹⁵</i> <i>Facilitate reestablishment with native wetland plants within stored tailings areas at completion¹¹⁶</i>	Issues noted: • ELMP does not include the Ruahorehore Stream wetland in Tables 2 or 3, but it is identified on the Proposed Integrated Mitigation Planting Plan. • ELMP does not include the multiple wetlands (including within the TSF3 tailings ponds) shown on the Proposed Closure Plans. • ELMP does not identify that the Ruahorehore Stream wetland planting and the wetlands shown on the closure plans (including within the TSF3 tailings ponds) are required to mitigate and/or offset and rehabilitate adverse natural character and landscape effects associated with the Waihi Area works on the margins of the Ruahorehore Stream, and Ohinemuri River. • ELMP does not provide detailed wetland planting information (area, species, % mix, implementation) • ELMP does not identify that stock access to the wetlands must be excluded through fencing.

¹⁰⁸ Page 78. LNCVE

¹⁰⁹ Page 80. LNCVE

¹¹⁰ Page 83. LNCVE

¹¹¹ Page 84. LNCVE

¹¹² Page 84. LNCVE

¹¹³ Page 75. LNCVE

¹¹⁴ Page 76. LNCVE

¹¹⁵ Page 84. LNCVE

¹¹⁶ Page 77. LNCVE

PROJECT MEMORANDUM

				- ELMP does not identify maintenance and monitoring of wetland planting (weed and pest plant clearance standards and ongoing maintenance and monitoring standards) Can be addressed through: - Addition of row/s in Table 2 of the ELMP, (including mitigation task and purpose, trigger activity, objective, relevant performance standard and timeframe) to include the Ruahorehore Stream wetland and other wetlands to be established upon closure (as shown on the Closure Plans). - Development of <i>performance standards</i> in the ELMP.
Other Terrestrial Planting on OGNZL owned land (Triggered by vegetation removal in GOP, NRS, or TSF3)	General ecological and landscape enhancement.		<i>Vegetation removal will be replaced with enhancements to native vegetation and habitats within an adjoining Significant Natural Area and riparian planting along the Ruahorehore Stream and the Ohinemuri River¹¹⁷.</i>	Issues noted: ELMP does not identify that these planting areas are required to mitigate and offset adverse natural character, and landscape effects associated with the Waihi Area.
Other Terrestrial Planting on land owned by others (Triggered by vegetation removal in GOP, NRS, or TSF3)	General ecological and landscape enhancement.		<i>Reinstatement of riparian and terrestrial vegetation along the margins of diverted streams and reinforcing existing vegetation along the Ohinemuri River;¹¹⁸</i> <i>Replace vegetation proposed to be removed in SNA T13UP166 and along existing watercourses to offset vegetation loss and improve connectivity along Ruahorehore Stream¹¹⁹</i>	- ELMP does not provide detailed terrestrial planting information (area, species, % mix, implementation) Can be addressed through: - Development of additional objectives and <i>performance standards</i> in the ELMP.
ELMP-WA Integrated Landscape and Ecological Response Plan (Table 3): Planting Referred to in Condition G24			LNCE	Overall Issues & Suggestions
What and why	How: Mitigation	Missing	Mitigation	
Riparian Planting of Diversion (Triggered by Commencement of construction in Area 7)	To offset stream diversions, recreate and enhance instream habitat and ecological function of diverted watercourse, to protect and enhance aquatic ecological values.		<i>...effects will be remedied or mitigated, including by restoring natural character through enhanced wetland and riparian planting which increases the overall connectivity and condition across the larger development footprint and avoids any potential longer term or significant adverse natural character effects¹²⁰.</i> <i>Vegetation removal will be replaced with enhancements to native vegetation and habitats within an adjoining Significant Natural Area and riparian planting along the Ruahorehore Stream and the Ohinemuri River¹²¹.</i> <i>...riparian vegetation re-established along diverted water courses¹²²</i> <i>Reinstatement of riparian and terrestrial vegetation along the margins of diverted streams and reinforcing existing vegetation along the Ohinemuri River;¹²³</i>	Issues noted: - ELMP does not identify that these planting areas are required to mitigate and offset adverse natural character, and landscape effects associated with the Waihi Area. - ELMP does not provide detailed riparian planting information (area, species, % mix, implementation) Can be addressed through: - Development of additional objectives and <i>performance standards</i> in the ELMP.
Waihi Riparian Planting within OGNZL owned Land (Triggered by Commencement of construction in Area 7)	To offset stream diversions, protect and enhance aquatic ecological values and enhance stream condition through connectivity throughout Ohinemuri River catchment.			
Waihi Riparian Planting on land owned by others (Triggered by Commencement of	To offset stream diversions, protect and enhance aquatic ecological values and enhance		<i>Replace vegetation proposed to be removed in SNA T13UP166 and along existing watercourses to offset vegetation loss and improve connectivity along Ruahorehore Stream¹²⁴</i>	

¹¹⁷ Landscape Effects, Executive Summary. LNCE

¹¹⁸ 9.5 NRS Landscape Mitigation, Page 69. LNCE

¹¹⁹ Page 84. LNCE

¹²⁰ Natural Character Effects, Executive Summary. LNCE

¹²¹ Landscape Effects, Executive Summary. LNCE

¹²² Page 63. LNCE

¹²³ 9.5 NRS Landscape Mitigation, Page 69. LNCE

¹²⁴ Page 84. LNCE

PROJECT MEMORANDUM

mansergh graham
LANDSCAPE ARCHITECTS



construction in Area 7)	stream condition through connectivity throughout Ohinemuri River catchment.			

To: Leigh Robcke, Hauraki District Council

From: Matt Baber, Alliance Ecology Ltd and Gerry Kessels, Bluewattle Ecology

Date: 21 August, 2025

Subject: **OGNZL – Terrestrial ecology review, Waihi North Project FTA application**

Introduction

Alliance Ecology and Bluewattle Ecology were engaged by Hauraki District Council ('HDC') to provide a review of terrestrial ecological matters for the Waihi North Project ('WNP') application by Oceana Gold Limited under the Fast Track Approvals Act 2004 ('FTAA'). Statements of evidence detailing our expertise, previous involvement in the application, and our individual technical scopes for this review, are provided in **Appendix A**.

This memo assesses the adequacy and appropriateness of the application in relation to terrestrial ecology. The documents reviewed are listed in **Appendix B**. Findings are presented under the following headings:

- a) Key conclusions
- b) Comments on proposed conditions
- c) Comments on draft management plans
- d) Technical comments on the assessment of effects and proposed effects management

The scope of our ecology review excludes kauri dieback provisions, which require review by a pathogen specialist, and excludes ecology-related matters for other agencies (Waikato Regional Council – streams/wetlands, and the Department of Conservation – Wildlife Act Authorities).

By way of background, we have been assisting HDC in the specialist ecology review of earlier drafts of the ecological effects assessment documentation since 2022. We note that most of our original concerns and requests for further information have been addressed in these latest set of documents presented as part of the fast track application.

Key conclusions

Overall, the description and assessment of terrestrial ecology values, project effects, and proposed measures to manage adverse effects are generally consistent with good practice and are likely to generate net positive outcomes for indigenous terrestrial biodiversity.

While some inconsistencies in the application limit clarity on certain effects or management actions, and we differ slightly from the applicant's ecologists in a few areas, these matters are minor in the context of expected positive outcomes. They can be readily addressed through refinements to consent conditions and management plans.

Our conclusion above reflects:

- The extensive ecological surveys across the WNP site ('the Site'), particularly for native frogs.
- A generally robust, transparent assessment of adverse effects, consistent with our own findings, with only minor differences in professional opinion.
- Comprehensive measures to avoid, remedy, minimise, offset or compensate for adverse effects.

We also note that:

- In some instances, as set out below, the proposed conditions of consent need refining to provide greater certainty regarding the biodiversity outcomes to be achieved. While it is appropriate for detail to be left to management plans, key information on how stated outcomes will be demonstrably achieved should be expressly required by conditions, e.g. pertinent information on approach, level of effort, duration of effort and adaptive management or contingency measures if required.
- We have recommended specific changes to certain conditions to achieve this, and have also highlighted other conditions where more complex changes are required.
- There are discrepancies between management plans and conditions across various ecological matters. Management plans require updating to align with proposed consent conditions, to ensure consistency in ecological management approaches.

Given the complexity and number of ecology reports and management plans, the impacts and proposed effects management measures are summarised in **Appendix C, Table 1** to aid our assessment.

Comments on proposed conditions

We generally support the proposed conditions of consent, though there are overall inconsistencies in their type and level of specificity. In particular, consent conditions related to avoiding effects on fauna within Area 1 are comprehensive, if not exhaustive, whereas specifics of residual effects management measures—ordinarily expected in consent conditions—are generally lacking.

Key matters requiring attention are outlined below. Direct comments and track changes have also been provided on clean versions of both condition sets (HDC, and Combined HDC and WRC condition sets).

Proposed Hauraki District Council conditions

HDC Condition 1 allows activities beyond those explicitly stated, provided they are outlined in the Application and technical documents. The current wording allows for broad interpretation, and we recommend refining it to reduce this discretion.

HDC Conditions 111 and 112: specify the requirement for a single release area for fauna within the WAPMA. This is inconsistent with **HDC Condition 132**, which requires fauna to be released at least 100m away from the drill site, and with the *Native Frog Monitoring Plan* which states there will be six 20m x 20m prepared release sites for Archey's frog. We are comfortable either way so long as the inconsistency is addressed and the release site(s) require pest reduction targets to be demonstrably reduced to stated levels prior to relocation of salvaged individuals

HDC Condition 171B: The condition should be amended to refer to "animal pests" rather than mammalian pests", since the WAPMP does not exclusively address mammalian pests and wasp control is such a key component of the animal pest control programme.

HDC Condition 171C: The condition requires amendment to address the use of adaptive management in pest control for frog habitat. The amendments required and their rationale are explained in relation to the WPAMP below.

HDC Condition 174 – 176: These conditions relate to the Frog monitoring plan, which is key to verifying that stated net gain outcomes for frogs will be achieved. To provide greater certainty, the consent conditions should be amended to specify or clarify the following:

- Project effects and effects management response monitoring methods for Hochstetter's frog and Archey's frog including the metrics used to determine net gain
- Level of effort applied to monitoring
- Monitoring duration and phase (e.g. baseline monitoring, post activity commencement monitoring, post mine closure monitoring)

HDC Condition 185: This condition requires amending to provide sufficient certainty that effects of vegetation clearance on breeding native birds, eggs and chicks are avoided or minimised and the ELMPs need updating accordingly. The ELMP WA currently states a 10m setback and the ELMP WUG and the currently states a 20m setback which are both insufficient. The condition and ELMPs in our experience should specify the following setbacks for vegetation clearance (distance from the nest) until fledging occurs:

- 30 metres for non-threatened indigenous species
- 50 metres for 'Threatened' or 'At Risk' species.

HDC Condition 195: The areal extents of each vegetation type to be planted (as required by Condition 195) should be clarified in Table 1, attachment 10 to the conditions to provide greater certainty that the quantum of plantings will be adhered to.

HDC condition 200 should state the specific biodiversity attributes that will be measured to verify net gain, along with the expected timeframe within which net gain will be achieved for each attribute so that there is greater certainty around net gain outcomes in the consent conditions.

HDC condition 205: Specific performance standards and biodiversity outcome targets should be included in conditions, to provide more certainty that outcomes will be achieved.

Additional HDC Condition requirements:

Under ECOLOGY AND LANDSCAPE – AREA 1 SPECIFICS consent conditions binding the applicant to undertake the 21 ha of offset planting and 5.5 ha of buffer planting proposed are required.

Proposed conditions common to Waikato Regional Council and Hauraki District Council

HDC/WRC Conditions C47A and C47B: we are concerned about how the effectiveness of the ELMPs in achieving their objectives will be measured. The stated objective of the approved ELMP-WUG is *'to identify how the potential adverse effects of the Waihi North Project on the ecological, landscape and biodiversity values within the WUG Area and its surrounds will be appropriately managed'*. However, this objective is only partially achieved within the scope of the ELMP-WUG, with related objectives achieved via the WAPMP and the Native Frog Monitoring Plan which are not-cross referenced. Moreover, this condition does not specify performance indicators or biodiversity outcome targets. While the ELMP-WUG identifies a limited number of 'success indicators', neither it nor the ELMP-WN specifically identify 'performance indicators'.

The objective for the ELMP-WA in condition 47B is similarly worded and gives rise to the same concerns.

HDC/WRC Condition C49: This condition requires an annual Waihi North Ecological and Landscape Monitoring Report to be submitted to Council. The report must include an assessment of the effectiveness of the ELMP in achieving its "objectives and performance indicators". As stated above, the ELMP Waihi Area does not expressly include performance indicators. Clause 49(c) of the condition should refer to performance indicators specifically included in condition 47B (following amendment to that condition as stated above). The ELMPs should then set out the methods by which these outcomes should be achieved and monitored.

Further to this, the conditions should require ecological monitoring and reporting to Council prior to, during and post-construction and operation to determine if specific ELMP objectives and performance measures are being met.

HDC/WRC Condition C52: To provide certainty around the measures required to achieve and verify stated net gain outcomes, an ecologist should be included as one of the technical experts on the review panel.

Comments on draft management plans

As noted above, all ecological management plans require amendment to address inconsistencies with the proposed consent conditions (including as recommended in the above assessment). Comments on specific management plans are as follows:

Wharekirauponga Ecology and Landscape Management Plan (ELMP-WUG)

- SNA 166 relocation sites should specify the requirement for mouse control, given the significance of the moko skink population at this site, which could potentially be impacted by project activities.
- The stated objective of the ELMP-WUG (Section 1.3) needs to be amended to also include notable terrestrial invertebrate communities (Threatened or 'At Risk' species, or those otherwise protected under the Wildlife Act), to address requirements under the RMA and Wildlife Act, as follows

"The objective of this Plan is to identify how the potential adverse effects of the WNP (WUG) on the ecological, landscape and biodiversity values within the WNP (WUG Area) and its surrounds will be avoided, remedied, mitigated and offset for:

(a) vegetation

(b) Habitats;

(c) Herpetofauna (lizards and frogs);

(d) Bats; ~~and~~

(e) Avifauna **and**

(f) Invertebrates (Threatened or At Risk species, or those protected under the Wildlife Act 1953).

- The ELMP-WUG should specify the methods for nest checks and marking setback distances before and during vegetation clearance, to ensure the outcomes required by revised HDC condition 185 (i.e. maintaining setback distances from the nest until fledging) are achieved.

Both the ELMP-WUG and ELMP-WN should include general incidental discovery protocols for other Threatened or 'At Risk' fauna species not detected in formal surveys, including but not limited to lizards and avifauna.

Wharekirauponga Animal Pest Management Plan (WAPMP – Boffa Miskell, 2025)

The proposed WAPMA (632 ha) encompasses both the potential vibration impacted area (314 ha) and an adjacent area of high-quality frog habitat (318 ha), which is not subject to potential vibration impacts. The intent is that if monitoring identifies that the thresholds for control targets have not been achieved, this will trigger a requirement for further control. The use of thresholds which facilitates adaptive management and ensures that pest populations are continuously and effectively suppressed, is supported. Tables 8 & 9 of the WAPMP outline the response measures to be undertaken for threshold exceedance for each target animal pest species.

It is not apparent that the Conditions adequately reflect this approach or allow for adaptive management strategies should the thresholds be exceeded. There should also

be flexibility and an adaptive management response to increase the extent of the pest control if management targets are not achieved. The pest control area is surrounded by a large buffer with lower pest control regimes, and hence much higher numbers of animals. Thus, the risk of continual reinvasion is high, and may mean that some of the management targets will be difficult to achieve without increasing the size of the animal pest control area (as well as the effort of control within the area – for which the plan does allow). We have provided suggested wording in the proposed conditions 171Ci, 171Cj, 171Ck to address this matter.

To determine a suitable outcome metric, linking the WAPMP to the Frog Monitoring Plan, and undertaking animal pest control to achieve an ideal population density of the two native frogs in question within the animal pest control area, it is necessary to measure achievement for the overall purpose of the WAPMP. This is required given the general uncertainty in establishing what the effects of vibration and dewatering will be on the frogs, and because there are no nationally recognised recommended pest control targets and thresholds for native frog recovery. This is allowed for in broad terms in Condition 171Ch, but there is no performance standard to measure success. It is also unclear what the contingencies are if the frog populations do not increase as expected.

Thus, while Condition 171B states what the objective is, given the uncertainty around what level of pest control is required to sustain the populations of both species of frogs, a performance standard relating to frog density tied to an outcome based adaptive management contingency strategy should the outcome not be realised is also considered appropriate. The assessment of effects on native frogs report (RMA Ecology Jan 2025), and the Animal Management Plan (Boffa Miskell Feb 2025) both state that the animal pest control programme are expected to enhance the population of both frog species of at least 2.3 x the current population over a period of 3–4 years (and possibly greater in years after that) for Archey's frog, and substantial increases (in the order of 4 x abundance increases) for Hochstetter's frogs. This appears to us to be a sound basis to measure success of the animal pest control programme in terms of showing a demonstrable net benefit for both species of frogs. We have recommended amendments to the proposed consent condition 171Cc to reflect these expected increases in the populations of both species as a measure of success, as well as threshold targets to initiate review of the animal pest control methods if they are not achieved.

Frog Monitoring Plan (Brian Lloyd Consulting 2025)

This is a thorough and comprehensive plan that provides us with a high degree of confidence that potential adverse effects and positive effects associated with the proposed WAPMP can be monitored to verify net gain, and if required, to inform adaptive management or contingency measures.

Vibration Management Plan (H.07 Oceania Gold 2025)

HDC Condition 175 clause (a) requires the Frog Monitoring Plan to set out the actions and methods required to minimise (and mitigate) vibration effects on native frogs. However, if adverse effects on frogs are detected, there appears to be no corresponding requirement for the Vibration Management Plan to minimise these effects. Rather, the Vibration Management Plan states that the proposed vibration magnitude is "set" to be protective

of ecology (in particular, Archey's frog). The Vibration Management Plan should clarify how it will be adapted, if at all, in response to results from the Frog Monitoring Plan indicating adverse effects of vibration on native frogs (i.e. to ensure Condition 175 is given effect to). We have provided suggested wording in proposed condition 175 to allow for an adaptive management response should adverse effects of vibration on native frogs be shown to be more than minor.

Technical comments on the assessment of effects and proposed effects management

We consider the scope of desktop and field investigations and level of survey effort to be generally commensurate with the type and scale of potential effects. However, we have identified several instances where our technical opinions differed from those of the applicant's ecologists. While not material to the overall positive outcomes expected, we record these differences, along with specific findings on the assessment of ecological effects, for completeness below. None of these matters need to be addressed via an amendment to a consent condition or management plan.

Ecological values

- a) Five-minute bird counts should have been undertaken quarterly to better capture seasonal habitat use and increase confidence in the avifauna values assessments.
- b) Additional data on the presence or relative abundance of lizards within the NRS riparian area would have better informed the magnitude of effects assessment.
- c) Several ecological values assessments were assigned lower than we consider warranted, based on our site visit and review of survey findings:
 - The project will result in a loss of 8.3 ha of vegetation from SNA-166, the impacted parts of which are stated as being of 'low' value (Bioresarches 2025), but with the SNA assigned moderate value overall. Based on our site visit, in relative terms and in the context of the surrounding landscape, this SNA is of relatively high value.
 - We disagree that fauna values at Willows Road Farm are 'low' (Boffa Miskell 2025a, Table 10). The 'At Risk' Hochstetter's frog was recorded in the headwaters of a stream near the Project footprint, and the 'At Risk' copper skink and ornate skink are potentially present.
 - Lizard values within the CFP project footprint area should be assessed as 'Very High', rather than 'High' as stated (Boffa Miskell 2025a, Table 10), on the basis that a Threatened lizard species is potentially present (Northern striped gecko) along with other 'At Risk' species.
 - While surveys recorded five long-tailed bat passes in the Gladstone Open Pit area in 2024 (Bioresarches, 2025, section 3.4), the Summary of Ecological Matters (RMA Ecology 2025b, section 2.3.1) states that no bats were recorded in this part of the site. Clarification is required.
- d) Ecological values for various flora and fauna species appear to have been assigned based on outdated classifications of threat status, rather than the most recent NZTCS

publications, with outdated publications cited for threatened flora, orthoptera and native frogs.

Project effects:

- e) Various inconsistencies between technical reports introduce uncertainty about the ecological impacts of the Project. These discrepancies relate to specific project components (such as the number of exploration drill sites within the WUG), baseline surveys (e.g., the recorded presence of bats within the GOP area), management protocols (inconsistent versions of the Site Selection Protocol) and the reported extent of effects (e.g., the extent of vegetation clearance). For example:
- The corresponding vegetation clearance associated with the exploration drill, pump test and vent raise sites, which is variously reported as 5,328m² (RMA Ecology 2025a) or 6,600m² (Boffa Miskell, 2025a; Substantive Application, ELMP-WUG) or 8,400 m² (RMA Ecology 2025b).
 - The removal of part of the western vegetation block beyond SNA166, cited as 1.2ha (Bioresarches 2025a) and 1.8ha (RMA Ecology 2025b).
- f) The stated 'level of effect' on ecological values in the Boffa Miskell (2025a) report does not consistently align with EclAG methodology. For example, fauna habitat in the CFP has been assigned a 'Very High' ecological value and the magnitude of effect a 'Negligible' value which equates to a 'Low' level of effect, but the level of effect has been assigned as 'Very High'.
- g) While we support the use of the EclAG, there are several apparent anomalies in its application, particularly regarding the scale at which effects have been evaluated, (Project Area vs local population) and whether the assigned level of effect has taken into account mitigation measures.
- h) With regard to noise effects, we agree that the magnitude of effect associated with episodic noise from drill and pump site operation, and helicopter activity, is potentially "very high" for native fauna (Boffa Miskell, 2025, B37), particularly for avifauna. However, overall, we expect these effects to be more than addressed by the benefits to avifauna anticipated from the extensive mammalian pest management proposed in the WPAMP.

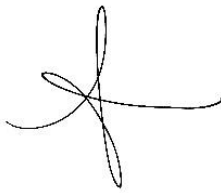
Residual effects management

Overall, given the quantum of native revegetation relative to loss and the amount of mammalian pest control proposed, we find that proposed habitat restoration and enhancement measures for addressing residual adverse effects (that cannot be avoided, minimised or remedied) are likely to:

- Achieve net positive outcomes for those values adversely affected by the project
- Provide additional positive outcomes for biodiversity values not impacted by the project, or those for which the level of effect was assessed as 'low' or 'very low'.

Although the Substantive Application describes "landscape mitigation", the ecology technical reports state an 'integrated' approach to ecological and landscape planting, which blurs the distinction between planting for the primary purpose of landscape

screening, and planting to specifically address ecological effects. While landscape mitigation has ostensibly not been 'counted' as ecological mitigation (Boffa Miskell 2025a), the application asserts that all offset/compensation planting is primarily for ecological benefit – including landscape planting – and therefore all planting meets the 'additionality' test of the NPSIB (RMA Ecology 2025b). We contend that landscape planting does not meet the 'additionality' test of the NPSIB as it is intended for the purpose of addressing landscape effects. That said, we consider somewhat academic and based on the specifications described, these plantings will contribute to tangible net positive ecological outcomes.



Matt Baber

Principal Ecologist / Director



Gerry Kessels

Principal Ecologist / Director

Appendix A: Experience and qualifications of Gerry Kessels and Matt Baber

Gerry Kessels

INTRODUCTION

My name is Gerardus (Gerry) Henricus Anthonius Kessels.

The purpose of this statement of evidence is to confirm my role in the project, and my qualifications and professional experience.

My role in relation to the Oceana Gold Waihi North Project Application has been to provide peer review expert advice in relation to Terrestrial Ecology for Hauraki District Council.

My findings are set out in the joint memo to which this statement of evidence is attached.

While this application is not being considered by the Environment Court, I confirm that I have read the Code of Conduct for expert witnesses contained in the Environment Court of New Zealand Practice Note 2023 and that I have complied with it when preparing this evidence. Other than when I state I am relying on the advice of another person, this evidence is within my area of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions that I express.

QUALIFICATIONS AND EXPERIENCE

I am currently employed as Principal Ecologist and Director at Bluewattle Ecology (Kessels & Associates Ltd) Ecology.

I hold a Bachelor of Science degree majoring in zoology (completed in 1988) and a Master of Resource and Environmental Planning (1st class honours, on wetland ecology – completed in 1999), both from Massey University.

I have 35 years' professional experience as an ecologist, working for DOC and consulting in New Zealand. I have been managing director and principal ecologist of Kessels & Associates Limited since 1999 (trading as Kessels Ecology until 2018, and now trading as Bluewattle Ecology), as well as on retainer with SLR Consulting as Technical Director – Ecology for the Asia-Pacific region.

I have completed the Ministry for the Environment Making Good Decisions course.

I am member of the New Zealand Ecological Society, the Ornithological Society of New Zealand, the Waikato Botanical Society, and an associate member of the New Zealand Planning Institute. I am certified with 'Bat Competency' by DOC as being suitably qualified to undertake and analyse data for bioacoustic surveys, identify long-tailed bat roosts and to capture and handle long-tailed bats.

Since 1996, I have appeared as an expert witness before numerous council hearings, the Environment Court and Board of Inquiry in relation to consent applications for infrastructure projects. My specialist expertise includes assessing significance of ecological attributes at a landscape ecology level, assessing ecological effects, bat and avifauna surveys, and designing and implementing mitigation, biodiversity offset and compensation packages, ecological restoration initiatives, and monitoring programmes.

I have undertaken ecological assessments or peer reviewed ecological assessment for various infrastructure projects including all sections of the Waikato Expressway, Transmission Gully, Puhoi to Warkworth Expressway (currently peer review ecologist representing Councils for the Cambridge to Piarere realignment of SH1 Fast Track application), Hauāuru Mā Raki Wind Farm Board of Enquiry, Southland Wind Farm Covid fast Track application, numerous plan changes and SNA assessments including the SNA assessment for Hauraki District and the SNA Assessment for Thames Coromandel, Denniston/Escarpment Mine Environment Court Appeal & Peer Review Panel, and the Ruataniwha Water Supply Scheme Board of Enquiry.

In providing this evidence in relation to terrestrial ecology, I have reviewed the relevant documents as set out in **Appendix B** of the memo to which this statement is attached.

I confirm that the contents of this review of the adequacy and appropriateness of terrestrial ecology assessment of effects and effects management may be relied on in making a decision on the approvals sought for the Oceana Gold Waihi North Project.

GHA (Gerry) Kessels

Dated 20 August 2025

Matt Baber

INTRODUCTION

My name is Matthew James Baber.

The purpose of this statement of evidence is to confirm my role in the project, and my qualifications and professional experience.

My role in relation to the Oceana Gold Waihi North Project Application has been to provide peer review expert advice in relation to Terrestrial Ecology for Hauraki District Council.

My findings are set out in the joint memo to which this statement of evidence is attached. My review did not address the following matters which were exclusively addressed by Mr Kessels:

- The proposed animal pest management as Dr Helen Blackie, who recently joined Alliance Ecology, contributed to preparation of the Boffa Miskell Pest Animal Management Plan.¹
- Effects on long-tailed bat and proposed effects management.

While this application is not being considered by the Environment Court, I confirm that I have read the Code of Conduct for expert witnesses contained in the Environment Court of New Zealand Practice Note 2023 and that I have complied with it when preparing this evidence. Other than when I state I am relying on the advice of another person, this evidence is within my area of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions that I express.

QUALIFICATIONS AND EXPERIENCE

I am currently employed as Principal Ecologist and Director at Alliance Ecology and have held that position since 2019.

I hold a Bachelor of Zoology from the University of Otago, a Master of Science (Hons) in Conservation Ecology from the University of Auckland, and a PhD in Ecology from Florida International University.

I have 24 years' professional experience as an ecologist, working in academia, local government and consulting in the United States and New Zealand.

My previous work experience includes eight years at Tonkin + Taylor, most recently as Project Director and the Technical Director (Ecology) and Group Manager (Ecology). Prior to that I held roles at Auckland Council including Biodiversity Group Manager.

I have completed the Ministry for the Environment Making Good Decisions course and was recertified as an independent hearing commissioner in December 2021.

I am a member of the New Zealand Ecological Society, the Ornithological Society of New Zealand, the Society for Research on Amphibians and Reptiles in New Zealand, the National Wetland Trust, and the Environment Institute of Australia and New Zealand (EIANZ). I have held a DOC Wildlife Authority to undertake lizard surveys and capture in the Auckland region since 2005.

Since 2006, I have appeared as an expert witness before numerous council hearings, the Environment Court and a Board of Inquiry in relation to consent applications for infrastructure

¹ Specifically this includes the Wharekirauponga Pest Animal Management Plan, the pest management sections of the ecological assessment reports, and relevant resource consent conditions.

projects. My specialist expertise includes assessing ecological effects, and designing and implementing mitigation /

biodiversity offset and compensation packages, ecological restoration initiatives, and monitoring programmes.

Of relevance to this project, I have served as the lead project ecologist or expert witness for the following large infrastructure applications:

- a) Bendigo-Ophir Gold Project ("BOGP") for Matakanui Gold Limited: Lead terrestrial ecologist for Fast-track approvals application.
- b) Kaihiku Wind Farm (Lochindorb Wind Limited Partnership): Lead terrestrial ecology expert (vegetation, lizards, and invertebrates) for Fast-track Approvals application.
- c) Buller Plateau Project (Bathurst Resources Ltd): Lead herpetologist and biodiversity offset/compensation expert for Fast-track Approvals application.
- d) Huia Water Treatment Plant Upgrade: Terrestrial ecology expert representing the Auckland Tree Council in Environment Court mediation.
- e) Brynderwyn emergency works for NZ Transport Agency Waka Kotahi (sub-consulting to WSP Limited)(Nov 2023 – ongoing): Lead herpetologist overseeing the development and implementation of fauna salvage and relocation operations.
- f) Mill Road for NZ Transport Agency Waka Kotahi (2020 – ongoing): Lead terrestrial ecologist for pre-consenting phases for the Supporting Growth Alliance.
- g) Pakiri sand mine resource application representing Auckland Council (2022 – 2024): Environment Court expert witness in relation to coastal birds.
- h) Appeared as an expert witness for the Department of Conservation on terrestrial ecology and coastal bird matters for the Transmission Gully Motorway Board of Inquiry.
- i) Proposed 255 ha Beachlands South Development – led terrestrial ecology inputs to the Assessment of Effects phase, including the proposed Beachlands South Plan Change Application.
- j) Peacocke Structure Plan (Plan Change 5 for Hamilton City Council (2022 – 2023): Council reviewer and expert witness for terrestrial offset and compensation matters.
- k) Manawatū Tararua highway for NZ Transport Agency Waka Kotahi (2020 – 2022): Lead terrestrial and wetland ecologist for the Assessment of Effects and co-lead for the development of the biodiversity offset and compensation package.
- l) Auckland Regional Landfill for Waste Management New Zealand (2018 – ongoing): Lead terrestrial and wetland ecologist, and Environment Court expert witness.
- m) Mt Messenger Bypass Project for NZ Transport Agency Waka Kotahi (2017 – 2018): Ecology Lead for the Multi-Criteria Analysis phase.

In providing this evidence in relation to terrestrial ecology, I have reviewed the relevant documents as set out in **Appendix B** of the memo to which this statement is attached.

I confirm that the contents of this review of the adequacy and appropriateness of terrestrial ecology assessment of effects and effects management may be relied on in making a decision on the approvals sought for the Oceana Gold Waihi North Project.

Dr Matthew James Baber

Dated 20 August 2025

Appendix B: List of documents reviewed

The documents reviewed include:

- The Substantive Application Report, particularly the following sections and the accompanying descriptions and maps:
 - Introduction (A.04)
 - Project description (A.05)
 - Environmental setting (A.06)
 - Effects assessment (A.09) and
 - Effects management and monitoring (A.10).
- Relevant Technical Reports forming part B of the application including:
 - OGNZL – Biodiversity Project Overview Document – (OGNZL 2025b)(B.35)
 - Bioresearches – Terrestrial Ecological Impact Assessment (Waihi Area) (Bioresearches 2025a)(B.36)
 - Boffa Miskell – Terrestrial Ecology Values and Effects of the WUG (Boffa Miskell 2025a)(B.37)
 - RMA Ecology – OGNZL Wharekirauponga Mine: Assessment of Effects on Native Frogs (RMA Ecology 2025a)(B.38)
 - Bioresearches – Proposed Wharekirauponga Underground Mine – Native Frog Effects Assessment (Bioresearches 2025b)(B.39)
 - Boffa Miskell – Pest Animal Management Plan – Wharekirauponga Compensation Package (Boffa Miskell 2025b)(B.40) **(reviewed by Gerry Kessels only)**
 - Lloyd's Ecological Consulting – Estimating the Proportion of the Coromandel's Archey's Frog Population in the Area Affected by Vibrations from the Proposed Wharekirauponga Underground Mine (Lloyd 2025a)(B.41)
 - Lloyd's Ecological Consulting – Analysis of the Results of Surveys for Hochstetter's Frogs Undertaken in 2024 to Assess the Impacts of Stream Flow Reductions Associated with the Wharekirauponga Underground Mine (Lloyd 2025b)(B.42)
 - RMA Ecology – OGNZL Wharekirauponga Mine: Overall Summary of Ecology Matters (RMA Ecology 2025b)(B.47)
 - Pedersen Read – Assessment of Environmental Effects: Lighting (Pedersen Read 2025)(B.52)
 - Heilig & Partners – Blasting and Vibration Assessment (Heilig 2025)(B.53)
 - Marshall Day Acoustics – Assessment of Noise Effects (B.56)
 - Lloyd's Ecological Consulting – A Plan for Monitoring Potential Effects of the Proposed Wharekirauponga Underground Mine Project on Native Frogs (Lloyd 2025c)(B.58).
- Proposed conditions including:

- Hauraki District Council and Waikato Regional Council combined proposed conditions – Clean version dated 28 July 2025 (D.02)
- Hauraki District Council proposed conditions – Clean version dated 28 July 2025 (D.03)
- The following proposed Management Plans:
 - WUG Ecology and Landscape Management Plan (H.01)
 - Waihi Area Ecology and Landscape Management Plan (H.02)
 - Wharekirauponga Pest Animal Management Plan (H.05) (**reviewed by Gerry Kessels only**).
 - Vibration Management Plan (H.07)

Appendix C: Table 1 summary overview of project effects and effects management

Habitat type	Ecological value	Habitat/ associated species impact	Measures to avoid, minimise or remedy effects	Offset/compensation measures	Additional measures proposed
Kauri forest/mixed secondary broadleaf forest and kanuka scrub (WF11 and WF13) Provides habitat for Threatened and ‘At Risk’ fauna including lizards, Archey’s and Hochstetter’s frogs	Very high	0.66 ha Surface vibration (314 ha) may affect native frogs, along with vent raise discharges (0.36ha) & impact on 1.5km of stream habitat.	• Avoidance of high-quality habitat • Vegetation clearance protocols • Minimisation of surface vibration • Salvage fauna and translocation to pest-controlled area. • Drill/ vent shaft site remediation • 21 ha of enhancement planting • 314 ha of intensive pest control for 15 years within vibration footprint • Ungulate control within 1km buffer • 5.5 ha of buffer planting adjoining CFP	• 318 ha of pest control for 15 years outside the vibration threshold footprint. • Funding to research efficacy of pest control regimes for frog recovery	Predator control, and ecological enhancement of up to 18,870 ha within CFP for at least 10 years (\$8.4M) that will provide additional benefits outside of project specific effects management needs
Rewarewa forest (VS5)	Low	3.6 ha within SNA	• Vegetation clearance protocols • Lizard salvage and relocation • Bat-tree felling protocol • 4.45 ha of pest control until mine closure • Weed control for 5 years (or until canopy closure target met) • Buffer planting (10m width along SNA boundary) • Remediation of the rock stack area	• 17.5 ha of offset restoration planting for loss of SNA • 20 ha of replacement planting within the SNA (or adjoining area), with 20 years of pest control • 20 ha of offset restoration planting • 20 years pest control for restoration plantings • Pest control over 6.4 ha of copper skink habitat, including intensive control in lizard area • 11.2 ha of revegetation with pest control (for loss of copper skink habitat)	
Treefern scrub	Moderate	5 ha (4.6ha in SNA)			
Regenerating native vegetation (copper skink habitat)	Moderate	1 ha			
Rocky outcrop (copper skink habitat)	Moderate	0.4 ha			
Planted native restoration (10-20 yrs)	Moderate (0.3 ha Low)	9.4 ha			
Exotic pine forest	Low	6.2 ha (5.1 ha copper skink habitat)			
Grazed pasture	Low/Very Low	Unquantified			
Mixed native/exotic vegetation	Low	0.25ha	• Fencing of riparian revegetation • Vegetation clearance protocols • Reveg/remediation at mine closure		

Memo

To: Leigh Robcke, Senior Project Planner, Hauraki District Council

From: Greg Akehurst, Director Market Economics

Date: 20/08/2025

Re: Economic Effects of the Waihi North Project - Peer Review

Introduction

The purpose of this memo is to provide a peer review of the Economic Effects of the Waihi North Project report prepared by Shamubeel Equb of Equb & Equb Limited 21 February 2024 ('the report'), on behalf of OceanaGold New Zealand Limited, for Hauraki District Council ('HDC'). According to the authors, the report was prepared to establish the economic impact of an expansion and extension proposal for the gold mine in Waihi. The project is called the Waihi North Project ('WNP').

This review focuses on the approach adopted, the assumptions made, and results of the analysis in respect of the economic effects.

Key findings of the report

The report finds that;

- The project results in over NZ\$1b of additional capital investment (\$895m excluding inflation). This reflects a high percentage of total annual NZ Foreign Direct Investment (FDI)
- The project generates a nominal total of \$5.2b of silver and gold export revenue over its lifetime (an average of \$286m). This is the equivalent of 64% of wool exports to June 2024.
- The project supports an annual average of 389 jobs directly in the mine (company employed and contractors), a further 244 via mine suppliers and 195 as a result of wages and salaries being paid directly or indirectly in the rest of the economy
- In terms of economic activity, the report states \$1.97b in nominal expenditure over the 18 years in New Zealand on wages, suppliers, taxes, royalties and fees. Of this total it finds \$1.1bn will be spent in Hauraki District, a further \$252m in the rest of Waikato and \$641m in the rest of New Zealand. On average this adds 6% to the Hauraki economy and 0.2% to the Waikato Region.

The report claims that the project requires significant investment that will unlock mineral resources with significant regional and national economic benefits

Economic Impact Assessment Report in Detail

The report outlines the nature of the project which includes the following elements





- A new underground mine at Wharekirauponga with surface infrastructure and underground access to the processing plant at Waihi
- A new open pit and works to facilitate conversion to store tailings
- A temporary rock stack for the underground mine
- A new tailings facility 3 to crest height of 155m RL
- An upgrade to the processing plant to facilitate 2.25MTPA, and
- An upgrade to the existing water treatment plant

The mine is expected to produce in excess of 1.5 million ounces of gold and 2.2 million ounces of silver. The report states that the investment will provide significant benefits to New Zealand, and especially Hauraki District and **will maximise the recovery of the Crown's resource.**

In Section 2, the report reiterates the scale of economic outcomes and states that the counterfactual of the analysis is that the current life of the mine plan will continue with the mine closing in 2032. Section 2 goes on to discuss the contribution of the existing mine to Waihi and New Zealand. In employment terms, it states that a job in the mine supports a total of 3 jobs in New Zealand. The report uses company data to understand both the scale of impact and its distribution across New Zealand (based on supplier location).

Section 2 (page 10) then assesses the future economic contribution of WNP (the purpose of the report). It states that the key metrics for quantifying economic contributions are; exports, foreign direct investment, economic activity and employment.

Export Revenue

- Report assumes US\$2,000/oz and NZD/USD exchange rate of \$0.61. This means exports have a nominal value of \$5.2bn over 18 years or an annual nominal value of \$286m

ME Comment: If these figures are represented in NPV terms, in order to be consistent with estimates of current annual GDP generated at HDC and Waikato Region level, and (as Treasury suggest) for projects with a social benefit being discounted at 2% for the first 30 years, and sensitivity tested using an 8% discount rate to reflect a more commercial return, the discounted value of exports sits between \$1.9bn_{NPV 8%} and \$4.0bn_{NPV 2%}. The true value of exports in current terms will sit between these values.

It is also worth noting that for the first 7 years of the project, exports are zero, so while the nominal \$286m annual average is accurate, the nominal average for the years of production is \$468m in export returns.

Export revenue is then compared to a range of other NZ based businesses. The report finds the scale of these exports ranks the business 188th in New Zealand. However, there is a significant difference



between a business that is owned offshore (such as OceanaGold¹), extracting a non-renewable mineral and exporting it offshore, then repatriating profits offshore - from a New Zealand based enterprise offering services within New Zealand generating revenue and making profits for New Zealand shareholders – such as Strait NZ, or the large listed property businesses listed (Precinct Properties, Kiwi Properties and Goodman Property). In order for the total value of exports to be a meaningful measure, it is important to understand how much of the revenue sticks to New Zealand.

Based on the figures provided, the real contribution to the New Zealand economy is likely to be limited to the corporate tax (between \$224m_{NPV 8%} and \$541m_{NPV 2%}) royalties (\$34m_{NPV 8%} and \$98m_{NPV 2%}) and operational expenditure as well as a component of capital expenditure. In total OPEX and CAPEX amount to between \$935m_{NPV 8%} and \$1.6bn_{NPV 2%}. These are substantial levels of activity in and of themselves and will result in substantial levels of economic activity supporting employment and generating significant contributions to GDP

Foreign Direct Investment

- The report states that WNP requires over \$1b of capital investment (\$895m excluding inflation). This is compared with total NZ FDI of \$4.1b in 2024.

ME Comment: It is not clear what the FDI component covers in the report, or how it is calculated. It is important to understand the make up of the FDI as it is a large number and could potentially have significant effects on the local and regional economy if it represents spend on goods and services within Hauraki District, Waikato Region and the rest of New Zealand. Under those assumptions, it is likely that the FDI will contribute directly around a third of its value as contribution to GDP (around \$295m over the project life), supporting employment. .

Economic Effects via Spending

- The report focuses on expenditure that is expected to occur within New Zealand, as one of the measures to quantify the economic effects of the project.
- The report identifies a nominal total expenditure within New Zealand of \$1,979m, of which some \$1,086m is anticipated to occur within Hauraki District (\$60m annually) including wages and salaries to mine workers and payments to suppliers.
- THE report identifies that in 2023 Hauraki District GDP was \$940m and therefore states that the \$60m of additional spend is equal to 6% of District GDP.

ME Comments: Infometrics state in 2024 that Hauraki District Council's GDP was \$1,474m, meaning the \$60m expenditure (in 2024 dollars) is the same as 4% of GDP. Given that the \$60m is presumably, a mix of wages and salaries paid to mine workers and contractors **and purchases from suppliers within**

¹ Oceana Gold (New Zealand) Limited is 100% owned by OceanaGold Corporation (OGC), a Canadian multinational mining company headquartered in Melbourne Australia.



Hauraki District – it is not 100% GDP. Therefore, it is wrong to equate it directly with Hauraki District's GDP.

Regardless, the mine as an entity is a large business within Hauraki District and will contribute strongly to District GDP.

At the District level the mine generates a significant positive economic effect.

The same issue arises with the expenditure that occurs within the rest of Waikato District, and the rest of New Zealand. **Expenditure is not equal to GDP.** Therefore, while the volume of spend that occurs is large, it is not possible – from the information provided to accurately estimate the mines actual contribution to GDP (from expenditure). By way of example, in most sectors, contributions to GDP are equivalent to around 33% of total expenditure on goods and services required to generate output. In this instance, the ratio will be higher, given the high portion of spend going directly to wages and salaries of OceanaGold employed workers and contractors. However, while the GDP contribution is not obvious, it will still be significant.

At the regional level, Waikato Region generated \$36.6bn in GDP in 2024 (according to Infometrics). Therefore, the total annual spend within Waikato Region of \$74.28m (made up of \$60.4m in Hauraki District and \$13.89m in the Rest of Waikato Region) is equivalent to 0.2% of Waikato Regional GDP as it states in the report².

However, given the statements above, the **money spent annually within Waikato Region is not all GDP.** This means that the actual contribution to GDP may be lower than 0.2% of regional GDP.

Therefore, at the regional level, the mine does not generate a significant contribution to GDP and while numerically the change is not significant, this is mostly due to the size and diversity of the Waikato Regional economy. It is difficult, if not impossible for a single project to make a 'significant' change to the output numbers.

Significance should be assessed in the wider context of current economic performance. In that light, the scale of the Waihi North Project is such that there will be a noticeable increase in employment within Hauraki District as well as jobs sustained across the Waikato Region.

In that context the economic benefits of the Waihi Mine Project are significant at the regional level.

Employment Effects

- The report uses company specific information to identify supported and direct employment. It finds;
 - 187 jobs directly in the mine

² Detailed information is contained in Appendix A, page 12 of the report.



- 192 jobs indirectly via contractors (plus 31 tunnel contractors)
- 243 jobs in other suppliers
- 195 jobs via induced demand (spending by workers and indirect workers)

At the Hauraki District level, this is significant with the direct jobs adding 8% to the 2024 district job count (of 5,648 jobs).

ME Comment: At the Hauraki District level, the additional employment is significant. The duration of employment is a social issue and not covered in the economic report.

Without the project, the existing Martha Mine is expected to close in 2032, meaning that the current levels of employment in mining will cease. The WNP helps to extend existing employment as well as supporting additional employment.

Conclusions

Section 4 is the conclusions section (the report appears to be missing a Section 3). In conclusion the report finds:

- WNP is a transformational project at the local and national level.
- WNP facilitates \$1b in FDI
- WNP exports \$5b over the project life
- WNP will spend \$2b in NZ over the 18 year life.
- That WNP is a nationally significant project from an economic perspective.

ME Comment: While it is a stretch to call the project “*transformative*”, at the local and regional level the levels of additional employment sustained are significant leading to significant economic benefits.

At the national level, the benefits are measured in terms of (employment) and the GDP generated from expenditure – which is robust, as well as royalties (\$134m nominally, or between \$34m and \$98m when discounted) and corporate tax (at 16%).

The Eaquab & Eaquab report presents a robust assessment of the expenditures and likely economic effects associated with the WNP. It itemises accurately the likely employment effects and how expenditure is likely to be distributed across the different spatial scales. It does not provide accurate measures of contribution to GDP and by presenting all figures in nominal terms, does not accurately portray revenues and impacts that are expected to occur, in current terms. This is a normal part of assessing flows of revenue and impacts over long time horizons to ensure they can be compared



accurately with activities that occur today (such as comparing additional GDP with current district and Regional GDP). By failing to do so, the Eaquad report over states likely effects and therefore likely benefits .

However, on balance, and by aligning the results of the Eaquad analysis and my own assessments, I **agree with Mr Eaquad, that the WNP generates significant economic benefits at the local and regional level.** While the benefits also exist at the national level, there effect is more muted due to the repatriation of profits.

20/08/2025

Greg Akehurst

Director



market economics ltd

level 5 507 lake road po box 331297

takapuna 0740 auckland new zealand

ddi +64 9 915 5511

mob 021 896 537

HDC feedback

The HDC feedback, reflecting the recommendations of the HDC specialists are shown as: ~~red underline, strikethrough,~~ and supplemented with a corresponding red comment in the comment column, and/or the source of the recommended amendment

WAIHI NORTH PROJECT - Proposed Conditions for the Hauraki District Council

Land Use Consents

[Note – the ‘comment’ column has been provided for guidance and interpretation purposes only, and is not proposed to form part of the consent conditions]

CONTENTS

Scope 2

Schedule One (Common Conditions)	13
Operational Noise	18
Blasting and Vibration	23
Lighting	36
Landscape Mitigation	37
Hazardous Substances	40
Property Programme	45
Transport	46
Heritage Features	52
Site Management Plan (Contaminated Land)	52
Social Impact Assessment Conditions	53
Ecology and Landscape – Area 1 Specific	60
Leiopelmatid Frog Specific Conditions	74
Management of Avifauna Associated with Vegetation Clearance in Area 1	80
Management of Bats Associated with Vegetation Clearance in Area 1	81
Management of Terrestrial Invertebrates Associated with Vegetation Clearance in Area 1	81
Kauri Dieback Management	81
Weed and Plant Pest Control	82
Waste disposal and toilets	82
Ecology and Landscape – Areas 2, 5, 6, and 7, and Planting Outside Areas 1-7	82



Public Access, Awareness and Safety in the Coromandel Forest Park	87
Administrative Charges	88
Review of Conditions	88

SCOPE

	Condition	Comment
1	The activities authorised by this consent include those listed below, as described in the Application and supporting technical documents submitted by OceanaGold New Zealand Limited to the Environment Protection Authority in support of authorisations for the Waihi North Project under the Fast-track Approvals Act 2024 (“Act”). The areas within which these activities will occur are depicted on Map 1 provided in Attachment 1 to this consent. <u>The consent shall be exercised in accordance with those existing authorisations contained in Part E.02 of the Application and supporting technical documents submitted by OceanaGold New Zealand Limited to the Environment Protection Authority in support of authorisations for the Waihi North Project under the Act. Prior to the exercise of the consent, the consent holder shall confirm which of these authorisations (and related conditions) are to be superseded by this consent, and make application to surrender or vary those consents accordingly. Until such time as that occurs, the conditions of those consents continue to apply.</u> a. Within the Biodiversity Project Area: i. Pest control and habitat enhancement works; and ii. Ecological monitoring activities b. Within Area 1: i. Clearance of indigenous vegetation within a Significant Natural Area (SNA) to enable the establishment of drill sites, pumping test sites, and ventilation shaft sites; ii. Exploration, mining operations and underground mining, including: i. Establishment of tunnels to the Wharekirauponga orebody (Wharekirauponga Mine Dual Tunnel); ii. Establishment of up to four ventilation shafts and associated surface ventilation sites, including ventilation easé and onsite construction amenities;	Bentley & Co: Inserted to address the HDC identified issue of the coordination of the project overlapping several existing consents/authorisations



	Condition	Comment
	iii. Establishment of drill sites, pumping test sites, and ventilation shaft sites in the Coromandel Forest Park (“CFP”), including drilling platforms and all necessary infrastructure; iv. Establishment of water pump sites to take surface water from streams to service drilling activities; v. Exploration and investigative drilling, allowing for simultaneous operation of six surface drill rigs, of which a maximum of 5 may be platform-based rigs (the balance (1) being portable rig(s)). <u>This is inclusive of previously authorised exploration activity within Area 1;</u> vi. Establishment and use of, camp facilities and supporting amenity facilities such as portaloos, showers, and kitchens <u>on sites previously cleared/used for Exploration and investigative drilling;</u> vii. Use of existing helipads and establishment of new helicopter landing facilities at <u>investigative/exploratory</u> drill sites, and ventilation shaft sites <u>(a total of 4 sites used as helipads);</u> viii. Accessing drill sites, pumping test sites and ventilation shaft sites by helicopter, <u>with landing limited to approved helipad sites;</u> ix. Erection and maintenance of security fencing; x. Exploration and investigative drilling from underground and surface drill sites and portable rig locations; xi. Establishment of walking tracks to access drill sites, ventilation shafts and monitoring equipment; xii. Establishment of mine access tunnels; xiii. Development, stoping and mining of the orebody; xiv. Drilling, blasting, earthworks and the removal of waste material and ore; xv. Injection of cementation or other grout / sealant into ground for geotechnical and/or hydrogeological requirements; xvi. Backfilling of underground voids with rock, cemented rock fill (CRF) or cemented aggregate fill (CAF); xvii. Underground rock storage and stockpile areas;	Bentley & Co. Inserted for clarity Bentley & Co. Inserted for clarity Bentley & Co. Inserted for clarity Bentley & Co. Inserted for clarity to exclude portable drill sites



	Condition	Comment
	- xviii. Establishment of an underground explosives magazine; xix. Establishment of <u>an underground</u> workshop to service and maintain mine equipment; xx. Establishment of communications and general amenities within the tunnels; xxi. Establishment of refuge chambers, tunnel recesses and other areas necessary to effectively complete mining of the orebody; xxii. Establishment of sumps, pumps, pipelines, electrical equipment, ventilation infrastructure and other equipment to effectively and efficiently complete mining of the orebody; - xxiii. Use of a range of mining equipment to service the mine; xxiv. Storage and use of hazardous substances; xxv. Installation and use of monitoring equipment including piezometers, standpipes, telemetry nodes, weather stations, vibration monitoring equipment, level loggers and any ancillary monitoring equipment necessary to exercise this consent; xxvi. Maintenance of all equipment and installations; - xxvii. Restoration, mitigation and enhancement planting, habitat enhancement and pest control; - xxviii. Fauna salvage and monitoring; xxix. The establishment and maintenance of electric fencing around fauna release sites and fencing within fauna release sites; xxx. The establishment and maintenance of frog / lizard exclusion fences around drill sites; pumping test sites and ventilation shaft sites; xxxi. Any necessary fauna salvage in accordance with the ELMP-WUG; - xxxii. Rehabilitation and closure activities. - xxxiii. Installation of surface and groundwater monitoring devices, including piezometers installed in drilled holes, adjacent to Natural State Water Bodies and Natural Inland Wetlands; and	Bentley & Co. Added for clarity



	Condition	Comment
	xxxiv. Undertaking of surface and groundwater monitoring in Natural State Water Bodies and Natural Inland Wetlands. c. Within Area 2: i. Establishment and use of the Willows Portal and associated infrastructure; ii. Establishment and use of the Willows Access Tunnel from Willows Portal to the Wharekirauponga Mine Dual Tunnel (tunnel decline to the boundary of the property shared with the Coromandel (Indigenous Forest) Zone) and associated infrastructure; iii. Injection of cementation or other grout / sealant into ground for geotechnical and/or hydrogeological requirements; iv. Establishment of refuge chambers, tunnel recesses and other areas necessary to effectively complete mining of the orebody; v. Establishment of sumps, pumps, pipelines, electrical equipment, ventilation infrastructure and other equipment to effectively and efficiently complete mining of the orebody; vi. Drilling, blasting, earthworks and the removal of material; vii. Establishment and use of a ventilation shaft for the Willows Access Tunnel and associated infrastructure; viii. Vegetation clearance; ix. Earthworks including topsoil removal and stockpiling and the implementation of sediment control measures; x. Establishment of bunds / screens and security fencing; xi. Establishment of services and water management systems; xii. Establishment and use of the Willows Rock Stack and associated infrastructure; xiii. Establishment and use of topsoil, limestone and other non-acid forming material stockpiles; xiv. Establishment of silt, collection, and sediment ponds, and chemical treatment devices; xv. Establishment of a surface explosives magazine; xvi. Installation and use of a substation and switch room;	



	Condition	Comment
	xvii. Installation and use of electricity generators; - xviii. Establishment, use and lighting of offices, amenity facilities and workshops; laydown yards, water and wastewater services, emergency response facilities, security hut, boom gate, and other mine services (such as a first aid room, crib room, change house, and stores building); xix. Establishment and use of refuelling facilities, including fuel storage tanks; xx. Establishment of vehicle crossings from Willows Road to the Willows SFA; xxi. Construction of internal access roads and parking areas; xxii. Establishment and operation of a helipad and associated carparking. - xxiii. Erection of internal signs to provide directions, safety instructions and information for staff and visitors within the site; xxiv. Storage and use of hazardous substances; xxv. Installation and use of monitoring equipment, including piezometers in subsurface drilled holes, standpipes, vibration monitoring equipment, subsidence monitoring and all other necessary monitoring equipment necessary to exercise this consent; xxvi. Disturbance of soil and change of the land use at a Hazardous Activities and Industries List (HAIL) site; - xxvii. Underground and surface infrastructure including conveyance of compressed air, water, communications and electricity; - xxviii. Maintenance of all equipment and installations; xxix. Rehabilitation and closure activities; xxx. Restoration, mitigation and enhancement planting, habitat enhancement and pest control; and xxxi. Any necessary fauna salvage in accordance with the ELMP. d. Within Area 3: i. Construction, operation and maintenance of the Wharekirauponga Access Tunnel and associated infrastructure, including the new access portal for the Tunnel;	



	Condition	Comment
	ii. Drilling, blasting, earthworks and the removal of material; iii. ~~The placement of excavated rock material from Area 3 in existing underground mines for backfill;~~ iv. Injection of cementation or other grout / sealant into ground for geotechnical and/or hydrogeological requirements; v. Erection and maintenance of security fencing and a security hut; vi. Establishment and use of monitoring equipment, including piezometers in subsurface drilled holes, standpipes, vibration monitoring equipment, subsidence monitoring and all other necessary monitoring equipment necessary to exercise this consent; vii. Use of hazardous substances; viii. Maintenance of all equipment and installations; ix. Restoration, mitigation and enhancement planting, habitat enhancement and pest control; ~~and~~ x. Any necessary fauna salvage in accordance with the ELMP; ~~and~~ xi. <u>Rehabilitation and closure activities.</u> e. Within Area 5: Activities Specifically Related to the Gladstone Open Pit i. Surface mining of GOP (including drilling and blasting); ii. Partial backfilling and lining of GOP in preparation for tailings disposal; iii. Disposal of tailings within GOP TSF; iv. Capping of the GOP TSF with rock and soil, and undertaking rehabilitation activities; v. Capping of any potentially acid forming (PAF) pit walls above the spillway level; Other (Non-Gladstone Open Pit Specific) Activities vi. Establishment and use of a new access portal(s) for the Wharekirauponga Access Tunnel and to provide a new access <u>Portal</u> to the existing Martha Underground Mine; vii. Drilling, blasting, earthworks and the removal of material	Bentley & Co. This is not an activity occurring 'within; Area 3. Is it meant to say 'within Area 3 from' ? Bentley & Co. Added as this activity is missing from this Area Bentley & Co. Added for clarity



	Condition	Comment
	viii. ~~The placement of excavated rock material from Area 5 in existing underground mines for backfill;~~ ix. Injection of cementation or other grout / sealant into ground for geotechnical and/or hydrogeological requirements; x. Underground and surface infrastructure including conveyance of compressed air, water, communications and electricity; xi. Exploration and investigative drilling and the installation of piezometers and other monitoring equipment associated with the establishment and operation of GOP and associated infrastructure; xii. Clearance of vegetation, earthworks including stripping and stockpiling of topsoil, and the implementation of sediment control measures; xiii. Erection and maintenance of security fencing; xiv. Establishment and use of a topsoil stockpile adjacent to GOP; xv. Establishment of bunds / screens; xvi. Establishment and use of water management infrastructure, including new diversion and dewatering drains and storage ponds; xvii. Formation and use of internal access roads; - xviii. Transportation of crushed rock, either by conveyor or vehicular; xix. Disestablishment of the existing Favona Portal and related infrastructure; xx. Upgrades to the conveyor system; xxi. Hauling and/or conveying of rock to, from and between the new access portal(s), GOP, Polishing Pond Stockpile, Run of Mine Stockpile, Favona Stockpile, the Northern Rock Stack or TSF 3; xxii. Temporary stockpiling of limestone; - xxiii. Establishment and operation of new carparking facilities; xxiv. Relocation of any existing overhead or underground power lines, water and / or communication cables; xxv. Upgrade and operation of the Processing Plant to process up to 2.25 million tonnes of ore per annum;	Bentley & Co. This is not an activity occurring 'within' Area 5. Is it meant to say 'within Area 5 from' ?



	Condition	Comment
	xxvi. Upgrade and operation of the Water Treatment Plant; xxvii. Continued use of other existing facilities and infrastructure within the Waihi SFA, including the helipad, maintenance workshop, store, office and amenity facilities (as identified in Section 2.10 of the Substantive Application Report); xxviii. Erection of internal signs to provide directions, safety instructions and information for staff and visitors within the site; xxix. Continued storage and use of hazardous substances; xxx. Disturbance of soil and change of the land use at a HAIL site; xxxi. Maintenance of all equipment and installations; xxxii. Rehabilitation and closure activities; xxxiii. Restoration, mitigation and enhancement planting, habitat enhancement and pest control; and xxxiv. Any necessary fauna salvage in accordance with the ELMP. f. Within Area 6: i. Vegetation clearance; ii. Temporary and permanent storage of rock, including the establishment and operation of the Northern Rock Stack and associated infrastructure; iii. Earthworks including stripping and stockpiling of topsoil and subsoil from the Northern Rock Stack footprint; iv. Removal or relocation of existing structures, including an OGNZL owned dwelling, workshop structures, a fuel bowser and grease storage facilities; v. Relocation of any existing overhead or underground power lines, water and / or communication cables; vi. Establishment and use of water management infrastructure including diversion drains, pumps, pipelines and silt and collection ponds and associated spillways and discharge channels; vii. Installation and use of monitoring equipment, including piezometers in subsurface drilled holes, standpipes, vibration monitoring equipment, subsidence monitoring and all other necessary monitoring equipment necessary to exercise this consent; viii. Upgrades to the conveyor system;	



	Condition	Comment
	ix. Mining activities, including drilling, blasting and excavation at the Western Borrow Area; x. ~~The placement of excavated rock material from Area 6 in existing underground mines for backfill;~~ xi. Establishment and use of an explosives magazine; xii. Formation and use of internal access roads and parking areas; xiii. Installation of security fencing; xiv. Storage and use of hazardous substances; xv. Erection of internal signs to provide directions, safety instructions and information for staff and visitors within the site; xvi. Disturbance of soil and change of land use at a HAIL site associated with rehabilitation works; xvii. Excavation at the western borrow area; - xviii. Maintenance of all equipment and installations; xix. Rehabilitation and closure activities; xx. Restoration, mitigation and enhancement planting, habitat enhancement and pest control; and xxi. Any necessary fauna salvage in accordance with the ELMP. g. Within Area 7: i. Erection and maintenance of security fencing; ii. Clearance of indigenous vegetation, including clearance within a SNA; iii. Establishment and operation of TSF 3 and associated infrastructure; iv. Earthworks, including stripping topsoil and subsoil from the TSF 3 footprint, with associated erosion and sediment control measures; v. Establishment and use of soil and non-acid forming material stockpiles adjacent to TSF 3; vi. Establishment and use of water management infrastructure including diversion drains, perimeter drains, subsurface drains, pipelines and silt and collection ponds including the realignment of a section of the Ruahorehore Stream;	Bentley & Co. This is not an activity occurring 'within' Area 6. Is it meant to say 'within Area 6 from' ?



	Condition	Comment
	vii. The installation and use of monitoring equipment including piezometers in subsurface drilled holes, standpipes, vibration monitoring equipment, subsidence monitoring and all other necessary monitoring equipment necessary to exercise this consent; viii. Extension of existing TSF services to TSF 3, including, but not limited to, electricity for the leachate and pumping systems, existing tailings delivery lines, decant water return pipes and electricity for the decant return pumps, and extension of the overhead powerline; ix. Construction of the TSF 3 embankment and impoundment and associated infrastructure, including placement of soil, limestone and other material and geomembrane liners; x. Discharge of tailings; xi. Formation and use of internal access roads, haul roads and parking areas, ~~and use of existing OGNZL haul roads in the surrounding area;~~ xii. Use of hazardous substances; xiii. Erection of internal signs to provide directions, safety instructions and information for staff and visitors within the site; xiv. Change of land use at a HAIL site associated with rehabilitation works; xv. Mining activities, including drilling, blasting, and excavation at the central and eastern borrow areas; xvi. Maintenance of all equipment and installations; xvii. Rehabilitation and closure activities; - xviii. Restoration, mitigation and enhancement planting, habitat enhancement and pest control; and xix. Any necessary fauna salvage in accordance with the ELMP.	
	h. Outside the Biodiversity Project Area and Areas 1 – 7 (as defined further in Section 2.13 of the Substantive Application Report): i. Upgrade and use of the Kenny Street carpark; ii. Upgrade of Willows Road and the Willows Road / State Highway 25 intersection; iii. Operation of the conveyor in a reverse direction (i.e. from Area 6 to Area 5) to transport rock from the Northern Rock Stack to GOP or the WUG via the underground tunnels;	Bentley & Co. The surrounding area is not within Area 7



	Condition	Comment
	iv. Restoration and enhancement planting, habitat enhancement and pest control; v. Installation of surface and groundwater monitoring devices, including piezometers installed in drilled holes, adjacent to Natural State Water Bodies and Natural Inland Wetlands; vi. Undertaking of surface and groundwater monitoring in Natural State Water Bodies and Natural Inland Wetlands; and vii. Establishment and operation of any infrastructure which may be required to supplement water into Natural State Water Bodies and Natural Inland Wetlands. Activities not listed above may also be carried out, but only provided they are directly related to, and form part of, the Waihi North Project <u>and correspond to an activity</u> as described in the Application and supporting technical documents submitted by OceanaGold New Zealand Limited to the Environment Protection Authority in support of authorisations for the Waihi North Project under the Fast-track Approvals Act 2024. <i>Advice Note: Vegetation clearance associated with drill sites, pumping test sites, and ventilation shaft sites will comprise the clearance of any / all vegetation in the identified areas. Vegetation clearance associated with portable drill rig sites and water pump sites does not require tree clearance but will comprise the clearance of canopy material required to lower equipment into the site via helicopter, and the movement of any on groundcovers, wood debris, and forest duff within the identified area.</i> <u>The placement of excavated rock material from Area 1, 3, 5 and 6 in existing underground mines for backfill</u>	Bentley & Co. Without this qualifier, this discretion is too broad Bentley & Co. Added to replace suggested edits above
2	Pursuant to Section 87(b) of the Fast-track Approvals Act 2024, this consent shall lapse if not given effect to within 10 years of its date of commencement.	
3	Pursuant to Section 96 of the Fast-track Approvals Act 2024, this consent is for an unlimited period.	
4	At least 20 working days prior to the first exercise of this consent, the Consent Holder must advise the Hauraki District Council in writing of the date upon which the exercising of this consent is to be commenced.	



SCHEDULE ONE (COMMON CONDITIONS)

5	The Consent Holder must comply with the common conditions between the Hauraki District Council and the Waikato Regional Council in Schedule One. <u>Advice Note:</u> Schedule One includes conditions which address the following: a. Interpretation (Definitions and acronyms) b. Management Plans c. Tangata Whenua Conditions d. Annual Work Programme e. Company Liaison Officer f. Complaints Procedure g. Accidental Discovery Protocols h. Waihi North Biodiversity Project i. Dewatering and Settlement j. Ecology and Landscape Management k. Peer Review Panel l. Rehabilitation and Closure m. Public Provision of Management Plans and Monitoring Reports n. Rehabilitation Bond and o. The Martha Trust & Capitalisation Bond.	
	Construction Noise	
6	Conditions 7 - 14 apply to the following construction activities: a. Within all Areas: i. Construction of access roads; ii. Clearance of vegetation, stripping and stockpiling subsoils and topsoil; iii. Excavation and backfilling of the excavations where necessary; iv. Construction of clean and dirty water drains, underdrains, and silt and collection ponds and associated spillways; and v. Deconstruction works on closure of the facilities, e.g. removal of infrastructure and earthworks, and rehabilitation for future land use.	These are the activities that the Marshall Day noise report has recommended be subject to the construction noise limits



	b. Within Area 2: i. All construction of buildings and structures within the Willows SFA, and construction and maintenance of all site roads and access tracks; ii. Construction of Willows Portal and associated infrastructure, and initial 100 metre length of the Willows Access Tunnel; iii. Construction of drill pads, ventilation shaft and evasé; iv. Upgrades required to Willows Road; and v. Rock stack preparatory work, including subsoil and topsoil stripping and stockpiling, foundations, underdrains, surface water diversion drains and silt ponds. c. Within Area 3: i. Construction of the underground components of the access portal to the Wharekirauponga Access Tunnel and associated infrastructure, and the underground components of the Martha access portal, including the initial 100 metres of the Wharekirauponga Access Tunnel. d. Within Area 5: i. Relocation of services, including overhead powerlines; ii. All activities associated with installing replacement and new facilities within the Processing Plant and Water Treatment Plant; iii. Construction of noise barriers (bunds or walls) and soil stockpiles; iv. Initial stripping of soil, subsoil and overburden within the footprint of the GOP for the purpose of bund construction and soil stockpiling; and v. Construction of the surface components of the access portal to the Wharekirauponga Access Tunnel and associated infrastructure, and the surface components of the Martha access portal. e. Within Area 6: i. Rock stack preparatory work, including subsoil and topsoil stripping and stockpiling, and the construction of foundations, compacted liner, underdrains, surface water diversion drains and silt ponds; ii. Local material borrowing activities; and iii. Relocation of existing facilities: workshop, amenities; and	



	iv. Establishment and use of an explosives magazine f. Within Area 7: i. Construction of the upstream clean water diversion drains; ii. Placement and compaction associated with the ongoing operation of the Tailing Storage Facility 3; iii. Local material borrowing activities; and v. Foundation preparation for the soil stockpiles and then stripping and stockpiling soil from construction activities. g. Other activities: i. Upgrade works at State Highway 25 / Willows Road intersection; and ii. Upgrade of the Kenny Street carpark. <u>For the avoidance of doubt, these construction activities must not be operational activities and must meet the definition of “Construction Work” in NZS6803:1999 Acoustics – Construction Noise</u>	Styles Group

	Construction Noise Standards																																			
7	Subject to Condition 8 and Condition 9, noise from construction activities must be managed, measured and assessed in accordance with NZS 6803:1999 Acoustics - Construction Noise. <u>The cumulative noise level from all construction activities and</u> must comply with the noise limits set out in the following table. <table><tr><th>Day</th><th>Time</th><th>L_{Aeq}</th><th>L_{Amax}</th></tr><tr><td colspan="4">Residential Receivers: measured at or within the boundary of any occupied residentially zoned site or the notional boundary of any occupied dwelling in the Rural Zone.</td></tr><tr><td rowspan="4">0630h Monday to 0630h Saturday</td><td>0630h – 0730h</td><td>55 dB</td><td>75 dB</td></tr><tr><td>0730h – 1800h</td><td>70 dB</td><td>85 dB</td></tr><tr><td>1800h – 2000h</td><td>65 dB</td><td>80 dB</td></tr><tr><td>2000h – 0630h</td><td>45 dB</td><td>75 dB</td></tr><tr><td rowspan="4">0630h Saturday to 0630h Sunday</td><td>0630h – 0730h</td><td>45 dB</td><td>75 dB</td></tr><tr><td>0730h – 1800h</td><td>70 dB</td><td>85 dB</td></tr><tr><td>1800h – 2000h</td><td>45 dB</td><td>75 dB</td></tr><tr><td>2000h – 0630h</td><td>45 dB</td><td>75 dB</td></tr></table>	Day	Time	L _{Aeq}	L _{Amax}	Residential Receivers: measured at or within the boundary of any occupied residentially zoned site or the notional boundary of any occupied dwelling in the Rural Zone.				0630h Monday to 0630h Saturday	0630h – 0730h	55 dB	75 dB	0730h – 1800h	70 dB	85 dB	1800h – 2000h	65 dB	80 dB	2000h – 0630h	45 dB	75 dB	0630h Saturday to 0630h Sunday	0630h – 0730h	45 dB	75 dB	0730h – 1800h	70 dB	85 dB	1800h – 2000h	45 dB	75 dB	2000h – 0630h	45 dB	75 dB	The residential receiver limits are the construction noise limits recommended in the Marshall Day noise report Styles Group
Day	Time	L _{Aeq}	L _{Amax}																																	
Residential Receivers: measured at or within the boundary of any occupied residentially zoned site or the notional boundary of any occupied dwelling in the Rural Zone.																																				
0630h Monday to 0630h Saturday	0630h – 0730h	55 dB	75 dB																																	
	0730h – 1800h	70 dB	85 dB																																	
	1800h – 2000h	65 dB	80 dB																																	
	2000h – 0630h	45 dB	75 dB																																	
0630h Saturday to 0630h Sunday	0630h – 0730h	45 dB	75 dB																																	
	0730h – 1800h	70 dB	85 dB																																	
	1800h – 2000h	45 dB	75 dB																																	
	2000h – 0630h	45 dB	75 dB																																	



	<table><tr><td rowspan="4">0630h Sunday and Public Holidays to 0630 the following morning</td><td>0630h – 0730h</td><td>45 dB</td><td>75 dB</td></tr><tr><td>0730h – 1800h</td><td>55 dB</td><td>85 dB</td></tr><tr><td>1800h – 2000h</td><td>45 dB</td><td>75 dB</td></tr><tr><td>2000h – 0630h</td><td>45 dB</td><td>75 dB</td></tr><tr><td colspan="4">Commercial and Industrial Receivers: measured 1 m from the façade of any occupied building.</td></tr><tr><td rowspan="2">All</td><td>0730h – 1800h</td><td>70 dB</td><td></td></tr><tr><td>1800h – 0730h</td><td>75 dB</td><td></td></tr></table>	0630h Sunday and Public Holidays to 0630 the following morning	0630h – 0730h	45 dB	75 dB	0730h – 1800h	55 dB	85 dB	1800h – 2000h	45 dB	75 dB	2000h – 0630h	45 dB	75 dB	Commercial and Industrial Receivers: measured 1 m from the façade of any occupied building.				All	0730h – 1800h	70 dB		1800h – 0730h	75 dB		
0630h Sunday and Public Holidays to 0630 the following morning	0630h – 0730h		45 dB	75 dB																						
	0730h – 1800h		55 dB	85 dB																						
	1800h – 2000h		45 dB	75 dB																						
	2000h – 0630h	45 dB	75 dB																							
Commercial and Industrial Receivers: measured 1 m from the façade of any occupied building.																										
All	0730h – 1800h	70 dB																								
	1800h – 0730h	75 dB																								
8	The limits in Condition 7 do not apply in circumstances where: a. ~~A certified CNMP (in accordance with Condition C5 of Schedule 1) specifically identifies the activity and authorises an infringement of the limits in Condition 7. The activity causing the exceedance of the noise limits in Condition 7 is first identified within and subject to a certified Construction Noise Management Plan (in accordance with Condition C5 of Schedule One)~~ and is undertaken using the Best Practicable Option (“BPO”) for minimising the noise effects of the activity to ensure they are reasonable; or b. The exceedance of the noise limits in Condition 7 is no greater than 5 decibels; and c. The exceedance of the noise limits only occurs: i. between 0700 and 2200 for 1 period of no more than 2 consecutive weeks in any 2 months; or ii. between 2200 and 0700 for 1 period of up to 2 consecutive nights in any 10 days.	Styles Group																								
9	The construction noise limits in Conditions 7 and 8 do not apply to any property or site that is: a. Owned by the Consent Holder or a related company; or b. Owned or occupied by a third party which is subject to either a registered covenant or a written agreement (a copy of which has been provided to the Hauraki District Council) whereby noise effects on the property caused by activities authorised by this consent are not to be taken into account for monitoring and compliance purposes.	This clause applies to all of OGNZL’s existing resource consents.																								
	Construction Hours																									
10	Construction activities listed in Condition 6 must only occur between 0730 to 1800 on weekdays and Saturdays unless those activities are first specified in terms of their location, duration, timing and predicted noise levels and then authorised in a certified Construction Noise Management Plan.																									



Construction Noise Management Plan		
11	Other than ~~underground activities in for~~ Area 1 and Area 3 ~~(where activities are to occur underground)~~, for each Area described in Condition C1(i) of Schedule One, the Consent Holder must provide a Construction Noise Management Plan for certification under Condition C5 of Schedule One. Certification is required to verify that the Construction Noise Management Plan: - Includes actions, methods, monitoring programmes and trigger levels as appropriate to meet the objective in Condition 12; and - Satisfies the requirements in Condition 13 <i><u>Advice Note:</u> Construction Noise Management Plans may be submitted for each Area separately or multiple Areas combined (if submitted separately, it may be necessary to cross reference Construction Noise Management Plans in other areas).</i>	Styles Group
12	The objective of the Construction Noise Management Plan is to provide procedures for the development and implementation of the BPO for the minimisation of all construction noise effects, how the requirements of Condition 7 will be achieved, circumstance where Condition 8 applies, and to define the procedures to be followed if the noise standards in Condition 7 will be exceeded.	
13	The Construction Noise Management Plan must as a minimum, address the noise management measures set out in Annexure E of the NZS6803:1999 Acoustics - Construction Noise and address the following matters: - Construction sequencing; - Machinery and equipment to be used, including the use of non-percussive or low noise machinery where practicable; - Hours of operation, including times and days when noisy construction work will occur; - The design of noise mitigation measures such as temporary barriers or enclosures; - Construction noise limits for specific areas; - A specific section that specifies and requires the adoption of mitigation strategies where full compliance with the noise standards in Condition 7 cannot be achieved. This must include consultation with occupiers of affected buildings to achieve the BPO. This may include consideration of temporary relocation of building occupants where applicable;	Styles Group



	g. Procedures for notifying nearby residents of activities that are likely to generate noise levels above the limits in Condition 7; h. Methods for monitoring and reporting on construction noise <u>for activities that are authorised by a certified CNMP to exceed the noise limits in condition 7 and to meet the requirements of condition 14</u>; and i. Methods for receiving and responding to complaints about construction noise.	
<i>Construction Noise Monitoring</i>		
14	<u>The</u> In addition to any specific noise monitoring requirements in any certified CNMP, the Consent Holder must provide a summary report on compliance with Condition 7 to the Hauraki District Council every three months. <i>Advice note: compliance may be assessed by recording representative noise levels on a weekly basis during construction activities.</i>	This is the same monitoring frequency as is required on OGNZL's Project Martha resource consents for construction activities. Styles Group

OPERATIONAL NOISE

15	For the purposes of Conditions 16-25, operational noise is all noise associated with activities authorised by these consents other than construction noise arising from activities specified in Condition 6. <i>Advice note: For avoidance of doubt, operational noise includes:</i> i. noise associated with any activity undertaken in Area 1; ii. noise arising from maintenance activities in any Area.										
16	<u>a.</u> The noise rating level from operational activities authorised by this consent <u>assessed cumulatively</u> must not exceed the limits specified below when measured at or within the boundary of any residentially zoned site or the notional boundary of any occupied dwelling in the Rural Zone: <table border="1"> <tr> <td>0700 - 2200</td><td>Monday to Saturday</td><td>50 dB LAeq</td></tr> <tr> <td></td><td>All other times</td><td>40 dB LAeq</td></tr> <tr> <td>2200 – 0700 (the following day)</td><td><u>Every day</u></td><td>70 dB LAfmax</td></tr> </table> <u>b.</u> The noise level arising from road traffic associated with the Project on Willows Road must not exceed a level of 50dB LAeq(1hr) when measured and assessed 1m from the façade of 111 Willows Road and	0700 - 2200	Monday to Saturday	50 dB LAeq		All other times	40 dB LAeq	2200 – 0700 (the following day)	<u>Every day</u>	70 dB LAfmax	These are the noise limits recommended in the Marshall Day noise report. They apply to all activities not listed as 'construction activities' in Condition 6. Styles Group
0700 - 2200	Monday to Saturday	50 dB LAeq									
	All other times	40 dB LAeq									
2200 – 0700 (the following day)	<u>Every day</u>	70 dB LAfmax									



	<u>122 Willows Road. No adjustments for special audible character or duration apply to this noise limit.</u>	
17	Operational noise must be measured in accordance with the provisions of New Zealand Standard NZS 6801:2008 Acoustics – Measurement of Environmental Sound and assessed in accordance with the provisions of New Zealand Standard NZS 6802:2008 Acoustics – Environmental Noise.	
18	The Consent Holder must: a. Once every six months, record representative noise levels from all Areas and those activities outside of Areas 1 – 7 (as identified in Condition 1(h)) subject to active operations and assess them against the requirements of Condition 16; and b. Provide a summary report on compliance with Condition 16 to the Hauraki District Council every three months.	
19	The operational noise limits in Condition 16 <u>and 23</u> do not apply to any property or site that is: a. Owned by the Consent Holder or a related company; or b. Owned or occupied by a third party which is subject to either a registered covenant or a written agreement (a copy of which has been provided to the Hauraki District Council) whereby noise effects on the property caused by activities authorised by this consent are not to be taken into account for monitoring and compliance purposes.	This clause applies to all of OGNZLs existing resource consents. Styles Group
<i>Helicopter Flights</i>		
20	Helicopter flights from the Willows Road, Baxter Road and Golden Cross helipads must not exceed the following rolling 7-day averages: a. Willows Road / Golden Cross combined: 50 movements b. Baxter Road: 10 movements <i>Advice Note: A helicopter movement is any departure from or arrival at a helipad. <u>These movements are inclusive of and not in addition to any movements that form part of any authorisations identified in Part E.02 of the Application and supporting technical documents submitted by OceanaGold New Zealand Limited to the Environment Protection Authority in support of authorisations for the Waihi North Project under the Act</u></i>	Bentley & Co. Inserted reflective of the recommendation to Condition 1, and reflective of the applicant's acoustic assessment which does not assess/address the



		proposal as being in addition to those movements that are authorised.
21	Helicopters must not fly over the Waihi Township area shown in Map 1 provided in Attachment 2 .	
22	Other than flights arriving or departing the Golden Cross helipad, helicopter movements must not occur between 8pm and 7am Monday – Saturday or at any time on a Sunday or statutory public holiday.	
<i>Operational Noise Management Plan</i>		
23	For each Area described in Condition C1(~~ba~~) of Schedule One other than for Area 3 where activities are to occur underground, the Consent Holder must provide an Operational Noise Management Plan for certification under Condition C5 of Schedule One. Certification is required to verify that the Operational Noise Management Plan: a. Includes actions, methods, monitoring programmes and trigger levels as appropriate to meet the objectives in Condition 24; and b. Satisfies the requirements in Condition 25. <i>Advice Note: Operational Noise Management Plans may be submitted for each Area separately or multiple Areas combined.</i>	Bentley & Co. Correction
<u>23A</u>	<u>The consent holder must ensure that the noise from helicopter movements does not exceed the following noise limits when measured and assessed at the notional boundary of any dwelling:</u> <u>50dB Ldn when assessed as the rolling average over any 7-day period</u> <u>53dB Ldn on any single day</u> <u>70dB LAFmax between 10pm and 7am the following day</u> <u>Except that the noise from helicopter movements must be at least 5dB below these LDN levels when measured and assessed at the notional boundary of 111 and 122 Willows Road.</u> <u>The measurement and assessment of helicopter noise must be undertaken in accordance with NZS6807:1994 Noise management and land use planning for helicopter landing areas</u>	Styles Group
24	The objectives of the Operational Noise Management Plan are to ensure: a. Compliance with Condition 16 of this consent; and	This condition specifies the objective of the ONMP and the consent conditions it is designed



	b. That Noise from the operational activities authorised by this consent is minimised in accordance with the requirements of Section 16 of the Resource Management Act 1991 and adopts the BPO to ensure the emission of noise from the activities does not exceed a reasonable level.	to assist with implementing. Note the section 16 requirement referred to applies to the activities irrespective of the consent limits imposed on the consent
25	The Operational Noise Management Plan must as a minimum, address the following matters: a. The proposed measures to be used to control operational noise; b. Monitoring programmes c. The procedures that will be followed by the Consent Holder to receive, record, and respond to any complaint in relation to operational noise be received; and d. The role of the Consent Holder's staff in the management of operational noise, including the nomination of specific staff member(s) responsible for overseeing the implementation and upkeep of the Operational Noise Management Plan. e. <u>The methods and procedures to ensure that the road traffic noise limit set out in condition 16B is complied with. This could include physical measures (such as barriers) or management measures (such as speed restrictions).</u> f. <u>The specific noise management and mitigation methods that will be used to minimise noise effects on users of the Coromandel Forest Park, including minimising the noise of surface plant in the park such as pumps, compressors and other stationary plant.</u> The Operational Noise Management Plan must include a specific section which demonstrates how operational activities at the GOP and the Processing Plant will be undertaken to achieve compliance with Condition 16, including: e. The activity and location of noise sources associated with the works; f. The timing and duration of the activities generating noise; g. The noise-generating plant and equipment and their sound power levels; h. The specific noise mitigation measures that will need to be adopted to maintain compliance with the noise limits in Condition 16; i. ~~Daily helicopter flight number limits and flight exclusion times and dates;~~	This condition specifies the minimum contents of the Operational Noise Management Plan. It contains additional requirements in respect of GOP because the noise modelling shows those activities may, without appropriate management, exceed noise limits in Condition 16 at a number of properties. The measures listed in (e) – (j) are those the Marshall Day report considers necessary to include in the Operational Noise Management Plan for the Hauraki District Council and public to have confidence the activity will be / is being managed to achieve the consent limits in Condition 16. Styles Group



	j. The requirement for noise monitoring of the Processing Plant following its upgrade in relation to (g); and k. Procedures for noise monitoring and reporting to demonstrate compliance with the noise limits in Condition 16. <i>Advice note:</i> 1. <i>Specific management and mitigation measures are required for the GOP and the processing plant, where operational noise levels have potential to adversely affect amenity at dwellings located on Moore Street, Barry Road and George Street.</i> 2. <i>Use of real time monitoring will assist to provide verification of compliance and to inform the scheduling and adaptation of activities to minimise noise effects if required.</i>	
25A	<u>The Consent Holder must provide a Helicopter Noise Management Plan for certification under Condition C5 of Schedule One. The Helicopter Noise Management Plan applies to the use of helicopters for construction and operational use.</u> <u>Certification is required to verify that the Helicopter Noise Management Plan:</u> <u>a. Includes actions, methods, monitoring programmes and trigger levels as appropriate to meet the objectives in this condition; and</u> <u>b. To ensure that helicopter noise meets the noise limits in condition 23.</u> <u>The objectives of the Helicopter Noise Management Plan are to ensure:</u> <u>a. Compliance with Condition 23 of this consent; and</u> <u>b. That noise from all helicopter use authorised by this consent is minimised in accordance with the requirements of Section 16 of the Resource Management Act 1991 and adopts the BPO to ensure the emission of noise from the activities does not exceed a reasonable level.</u> <u>The Operational Noise Management Plan must as a minimum, address the following matters:</u> <u>i. Defined approach and departure tracks from each formal landing area to minimise noise effects for receivers near to all landing areas;</u> <u>ii. Preferred flight paths, flight procedures and any minimum altitude requirements for regular helicopter movements to minimise noise to all receivers under the flight paths;</u> <u>iii. Procedures to ensure that idling time on the ground is kept to a minimum;</u>	Styles Group



	iv. <u>Procedures to ensure that helicopters must not fly, land or hover within 400m of the Wharekirauponga track when the track is open between 1 December and 28 February (inclusive).</u> v. <u>methods and procedures to record flight numbers and track movements and helicopter types to ensure that compliance with the noise limits in condition 23 can be robustly determined on a daily basis.</u> vi. <u>In addition to iv, the methods and procedures that will be adopted to minimise noise effects for users of the Coromandel Forest Park. This may include specified flight, approach and departure tracks to avoid or minimise noise effects in sensitive areas, limiting helicopter use entirely over the peak park usage periods, timing helicopter movements to avoid or minimise conflict with park users or any other methods that may be practicable and effective.</u> vii. <u>Methods and procedures to ensure that all pilots are aware of the requirements of all conditions relating to helicopter activity, including the noise limits, the need to minimise noise as far as practicable and the need to comply with the certified ONMP.</u>	

BLASTING AND VIBRATION

26	All blast events must comply with the limits and standards set out in Conditions 28 and 29 as measured at the boundary of any <u>allotment, or at the notional boundary of rural property, not owned by the agency responsible for creating the vibration residential, low density residential or town centre zoned site that is lawfully used for residential purposes, or the notional boundary of any lawfully occupied rural dwelling.</u>	Blast technology
27	The standards in Conditions 28 and 29 do not apply to any property or site that is: a. Owned by the Consent Holder or a related company; or b. Owned or occupied by a third party which is subject to either a registered covenant or a written agreement (a copy of which has been provided to the Hauraki District Council) whereby vibration effects on the property caused by activities authorised by this consent are not to be taken into account for monitoring and compliance purposes.	
28	For all blasting within Areas 2, 3 and 5 associated with the establishment of access portals and underground tunnels: a. The peak particle velocity (vector sum) at the surface must be no more than:	These are the limits recommended in the Heilig vibration report. It allows night time blasting but subject to a



	i. 5mm/s for 95% of blast events between the hours of ~~1000 and 1500, Monday to Friday and 1000 to 1200 Saturday 0700 and 2000, Monday to Saturday~~ (excluding public holidays); and ii. 1mm/s for 95% of blast events at all other times; b. The duration of the underground development blasts must be limited to no more than 12 seconds; c. Compliance with the 95% limit must be determined based on the highest recorded vibration for each blast event measured at any monitor installed in accordance with Condition 42 9(f) or 42(g); and d. The maximum overpressure must not be greater than 120 dBL for any blast.	much more stringent vibration limit. Blastechnology
29	For all GOP Blasting within Area 5, and borrow pit blasting at the western borrow pit in Area 6, and the central and eastern borrow pits in Area 7: a. ~~The peak particle velocity (vector sum) at the surface must be no more than:~~ i. ~~5mm/s for 95% of blast events between the hours of 0700 and 1800, Monday to Saturday (excluding public holidays)~~ <u>Blast events will occur between the hours of 1000 and 1500, Monday to Friday and 1000-1200 Saturday (excluding public holidays)</u> b. ~~Peak particle velocity and peak overpressure levels will be measured for all blasts according to:~~ (i) ~~The peak particle velocity (vector sum) at any monitor point must be no more than 5mm/s for 95% of blast events; and~~ (ii) ~~1mm/s for 95% of blast events at all other times.~~ ~~b.c.~~ ~~Peak~~ Compliance with the 95% limit must be determined based on the highest recorded vibration for each blast event measured at any monitor installed in accordance with Condition 42(e); and ~~d.c.~~ ~~The maximum overpressure must not be greater than 120 dBL for any blast. The peak overpressure level will be monitored for all blasts and will not exceed 120 dBL for any blast~~	These are the limits recommended in the Heilig vibration report. Blastechnology
30	a. For all blasting within Area 1 the peak particle velocity (vector sum) at the surface must be no more than 15 mm/s for 95% of blast events. b. Compliance with this limit must be determined by: i. For development blasting (prior to the first stope blast), monitoring vibration at the surface above tunnelling activities within Area 2 to confirm that development blasting will not exceed the peak particle velocity (vector sum) limit set out in a.	This condition requires vibration in the CFP to be generally in accordance with that described in the Heilig report on which the assessment of effects on native frogs and recreation was based.



	above at any location where subsequent tunnelling occurs in Area 1; ii. For production blasting, monitoring vibration at three representative locations within the upper levels of the underground mine; and iii. Using a predictive algorithm and the vibration recorded at the three underground locations to calculate vibration from production blasting at representative assessment locations on the surface. The predictive algorithm for assessing compliance in this manner must continue to be included in any amended version of the VMP referred to in Condition C4.	
31	When applying Conditions 28 and 29: a. The percentile calculations must be based upon all recorded vibration data. Where the level of vibration does not exceed the threshold level of vibration, the blast shall be assumed to generate 0.5mm/s and be included in the calculation of the 95% statistics. b. For the first 100 blast events at each of: i. GOP; ii. Western Borrow Pit; iii. Central Borrow Pit; iv. Eastern Borrow Pit; v. Wharekirauponga Access Tunnel and Portal; and vi. Willows Access Tunnel and Portal; compliance with the 95% limit will be satisfied if no more than five of those first 100 events have a maximum particle velocity (vector sum) that exceeds 5mm/s. When applying Conditions 28 and 29 and 30: c. For the Gladstone Open Pit, unless b applies, compliance with the 95% limit must be measured over a rolling six-month period. For the other areas listed above in b, compliance with the 95% limit must be measured over a rolling 100 blast events. d. A 'Blast Event' is defined as an individual or number of linked individual blasts.	These requirements are as per the Project Martha LUC. As per the recommendations in the Heilig report (a) requires the threshold level for applicable vibration be set in the Vibration Management Plan. In accordance with the Heilig report Condition 45.f. specifies a default value of 0.75 mm/s be used unless location specific circumstances dictate an alternative number is appropriate.
<i>Minimising, Mitigating and Compensating Blasting Impacts</i>		
32	In addition to complying with the requirements of Conditions 28 - 29, the Consent Holder must minimise, to the extent practicable, the impacts	



	of blasting vibrations on the community. The measures to be applied must continue to be set out in any amended version of the VMP referred to in Condition C4, and must include, as a minimum: a. Restricting the magnitude and duration of blast events to a minimum consistent with safe and efficient mining operations; b. Implementing timely blast notification procedures using a methodology appropriate for the receiving environment(s); and c. Reporting blast event vibration results in a timely manner.	
33	Prior to the commencement of blasting within GOP, the Western Borrow Area, the Central Borrow Area and the Eastern Borrow Area, the Consent Holder must conduct a risk assessment, the objective of which is to set out procedures that minimise the risks associated with flyrock having considered all relevant and material factors including but not limited to: a. Proximity of blasting to any pit crest, neighbouring property and areas with public access; b. Blast design parameters such as stemming length, loading horizon, explosive quantity, explosive density, blast hole inclination, blast orientation and degree of ground fracturing; c. Identification and treatment of any uncharged holes or voids; d. Degree of ground saturation; and e. Potential risk control measures <u>including but not limited to the monitoring of every blast using video cameras and the rating of collar and free-face venting intensity in the Blast Report for every blast fired in GOP and the borrow pits.</u> The assessment must be undertaken by a person suitably qualified or experienced in risk assessment. The risk control measures, and the methods and procedures for implementing them, must continue to be set out in any amended version of the VMP referred to in Condition C4.	Blastechnology
<i>Amenity Effect Programme</i>		
34	Until blasting has been completed, the Consent Holder must ~~continue to~~ implement ~~an the~~ Amenity Effect Programme in respect of vibration as set out in Conditions 35 – 41 below, provided that owners and / or tenants who have entered into a separate arrangement with the Consent Holder and / or have otherwise agreed not to receive the Amenity Effect Programme will not be eligible to receive Amenity Effect Programme payments under this condition. <i>Advice note: The Amenity Effect Programme ~~is can be~~ a continuation of the existing Amenity Effect Programme which has been conditioned on previous OGNZL consents in Waihi. The Amenity Effect Programme required by this consent can be implemented in conjunction with the existing Amenity Effect Programme implemented by the Consent Holder.</i>	Bentley & Co. Correction



35	The Consent Holder must use the recorded data from the vibration compliance monitoring required by Conditions 28-30 to predict the vibration received from blasting at occupied residences, and must make payments to the occupiers of those residences in accordance with the table and criteria below: <table><tr><th>Vibration Magnitude (mm/s)</th><th>Payment Per Blast Event (\$)</th></tr><tr><td>1.5 – 3.5</td><td>23.89</td></tr><tr><td>≥ 3.5</td><td>71.52</td></tr><tr><td>≥ 5</td><td>238.86</td></tr><tr><td>≥ 6</td><td>475.02</td></tr></table>	Vibration Magnitude (mm/s)	Payment Per Blast Event (\$)	1.5 – 3.5	23.89	≥ 3.5	71.52	≥ 5	238.86	≥ 6	475.02	
Vibration Magnitude (mm/s)	Payment Per Blast Event (\$)											
1.5 – 3.5	23.89											
≥ 3.5	71.52											
≥ 5	238.86											
≥ 6	475.02											
36	The rates in Condition 35 are those existing at 1 January 2024. The rates will be adjusted for the start of each calendar year by the Consumer Price Index (“CPI”) published by Statistics New Zealand and made publicly available on the Consent Holder’s website.											
37	Any permanently occupied residence (including properties lawfully used for residential purposes in the Town Centre Zone or Low Density Residential Zone) shall be eligible to receive Amenity Effect Programme payments if in any month it receives two or more blast events generating vibration of 1.5 mm/s or greater.											
38A	For the purpose of Condition 37 a permanently occupied residence means a building that has been the normal place of residence for one or more persons for a period of at least 6 months prior to the trigger blast events where residential living is a permitted activity, a lawful existing use under section 10 of the RMA, or is authorised by a resource consent.											
38	The Amenity Effect Programme does not apply to any unoccupied houses or undeveloped residential property.											
39	Occupiers of eligible residences must receive a minimum payment of \$250 per six-monthly period.											
40	Payments to occupiers of eligible residences must be calculated six-monthly, and payment made within two months of those calculations being made or as soon as practicable thereafter.											
41	Should Amenity Effect Programme payments become taxable, the Consent Holder shall not be liable for any taxes associated with the payments. Nor shall the Consent Holder be liable for any future changes to national superannuation or other benefits as a result of an eligible occupier receiving the Amenity Effect Programme payments in accordance with this consent.											
<i>Blasting and Vibration Monitoring</i>												



42	a. The Consent Holder must monitor impulsive vibration from all blast events at GOP, the Western Borrow Area, the Central Borrow Area and the Eastern Borrow Area, and all blast events associated with the development of the WUG, Wharekirauponga Access Tunnel and the Willows Access Tunnel; b. The equipment used for monitoring, equipment calibration and vibration measurement procedures must comply with the current Australian Standard AS2187.2 (or equivalent international standards) and equipment manufacturers' recommendations; c. The fixed monitoring system must be automated to allow for the prompt analysis of each blast event; d. The monitoring must be conducted by suitably trained personnel, including the installation of roving monitors; e. Unless otherwise required or confirmed in writing by the Hauraki District Council, the vibration monitoring for GOP blasting must include fixed monitoring at the sites shown in the figure annexed as Attachment 3 to this consent throughout the period of its development and mining operations; f. Unless otherwise required or confirmed in writing by the Hauraki District Council, the vibration monitoring for the Western Borrow Area, Central Borrow Area and Eastern Borrow Area blasting must include fixed monitoring at the sites shown in the figure annexed as Attachment 3 to this consent throughout the period of its development and mining operations; g. Unless otherwise required or confirmed in writing by the Hauraki District Council the vibration monitoring for the Wharekirauponga Access Tunnel blasting must include fixed or roving monitoring units at the sites shown in the figure annexed as Attachment 3 to this consent throughout the period of its development; h. Unless otherwise required or confirmed in writing by the Hauraki District Council the vibration monitoring for the Willows Access Tunnel blasting must include a roving monitor sited at or near a representative residence (to be determined by a suitably qualified and experienced expert) throughout the period of its development; i. Unless otherwise required or confirmed in writing by the Hauraki District Council the vibration monitoring for the WUG must include: i. Monitoring vibration using geophones placed at three locations within the upper levels of the underground mine; ii. Use of a predictive algorithm to predict the vibration levels at the surface using the monitoring data collected in accordance with (i); and iii. Periodic monitoring undertaken at least one of the indicative surface assessment locations shown in Attachment 3 to this	These monitoring requirements are as per the existing Project Martha land use consent. The monitoring locations specified in clause (e) and (f) are those identified in Figure 8 and 9 of the Heilig vibration assessment as appropriate. In accordance with the recommendations of the Heilig vibration assessment clause (f) and (g) allow use of roving monitors for compliance given the short duration of the effects that would be experienced as the blasting proceeds through the tunnel length.



	consent sufficient to ensure the accuracy of the predictive algorithm and reliability of the predicted vibration levels j. Unless otherwise required or confirmed in writing by the Hauraki District Council, the overpressure monitoring for GOP blasting must include fixed monitoring at the sites shown in Attachment 3 to this consent; k. Unless otherwise required or confirmed in writing by the Hauraki District Council, the overpressure monitoring for the Western Borrow Area, Central Borrow Area and Eastern Borrow Area blasting must include fixed monitoring at the sites shown in Attachment 3 to this consent; l. Unless otherwise required or confirmed in writing by the Hauraki District Council, the overpressure monitoring for the establishment of access portals and underground tunnels within Areas 2, 3 and 5 must include a temporary monitor sited at or near a representative residence for the first 50m of tunnel development from all new access portals; m. The fixed monitoring locations must not be on, or inside, a building or structure; n. Pursuant to (e), (f) or (g), data received from a roving monitor may identify a new or additional permanent monitoring location; o. A roving monitor must be deployed to record vibrations in locations where complaints regarding vibration have been made in accordance with a procedure specified in the VMP referred to in Condition C4; and p. A complete record of each blast event must be maintained which includes: i. Types of measurement instrument used; ii. Time and duration of blast event; iii. Locations of blasts; iv. Locations of monitoring positions; v. Distances from the blasts to the monitoring position and nearest residence (except for blasting within Area 1); vi. Measured vibration levels; vii. Total amount of explosive used; viii. Delay sequence of the blast event; ix. Maximum instantaneous charge; x. Volume of rock blasted; xi. Complaints (including the nature of effects, for example rattling window, was the complainant awoken) and whether	



	the vibration mitigation action process has been undertaken; and xii. Design criteria not covered in items (i) to (xi) above.	
<i>Vibration Management Plan</i>		
43	The Consent Holder must implement the VMP referred to in Condition C4 of Schedule One, subject to any amendments that may be made under Condition C8-C8D of Schedule One.	
44	Any amendment to the VMP made under Condition C8-C8D must ensure that the following objective is met: a. The impacts of blasting vibrations on the community in accordance with Condition 31, as well as ecological habitat values within Area 1, are minimised to the extent practicable. <i>Advice note: The VMP may be separate for each Area and/or cover multiple Areas combined.</i> <i>The VMP may be combined with any similar management plans required under other resource consents held by the Consent Holder which authorise mining in the Waihi area, however must be clear as to the scope / extent of content and coverage.</i>	
45	Any version of the VMP amended under Condition C8-C8D must continue to include as a minimum: a. The measures to be adopted to ensure that the objective identified in Condition 44 is met, including, where relevant providing: - A description of the blast design criteria and blast design review procedures required to achieve the ground vibration level limits specified in Conditions 28 – 30; - The numbers, times and duration of blast events, and in general terms the coordination of blasts and steps to minimise the duration of blast events; - Procedures to be adopted where vibration levels approach the maximum limits and mitigation actions to be implemented in the event of an exceedance of the ground vibration level limits stated in Conditions 28 – 30; - The methods and procedures to be adopted for managing and monitoring of overpressure, including detailed analysis of measured overpressure traces, to achieve and demonstrate compliance with the overpressure limits specified in Conditions 28 – 30, and to ensure that no perceptible overpressure is experienced at any location where the overpressure limits in those conditions apply between the hours of 2000 and 0700;	The requirements of the Vibration Management Plan align with those in the Project Martha LUC. Notable exceptions are: - It allows the use of roving monitors for determining compliance for the access tunnels in accordance with the recommendations of the Heilig report; and - It requires the monitoring vibration threshold level for individual sites be specified in this document in accordance with the Heilig report. The default value specified in (d) is that



	v. The methods and procedures identified by the risk assessment required by Condition 33 which are to be adopted to manage flyrock; vi. The methods and procedures to be adopted in deploying the roving monitor(s), data usage from the roving monitors, procedures for converting a roving monitor location to a fixed monitoring location and identifying circumstances where vibration monitoring within structures must be considered; vii. The methods and procedures for managing vibration related complaints and responses to those complaints; and viii. The methods and procedures for identifying and addressing anomalous vibration results recorded at any monitored site, including sites monitored with roving monitors; b. The fixed monitoring locations to be established in accordance with Condition 42 (e), (f), and (g); c. The locations of the roving monitor to be established in accordance with Condition 42 (g), (h) and (i); d. The methods and procedures for differentiating between blast sources for vibration monitoring purposes immediately prior to the firing of the blast event for the various sites to allow for unambiguous classification of the source of the vibration event. e. Measures to be adopted to demonstrate compliance with Condition 28, including: i. The underground monitoring locations to be established in accordance with Condition 42 (i)(i); ii. The software and algorithm to be used to calculate surface vibration using the vibration recorded at those underground monitoring locations; iii. The location of the representative surface assessment locations where surface vibration will be calculated to assess compliance with Condition 30; and iv. The methodology for undertaking periodic surface monitoring in accordance with Condition 42 (i)(ii) to calibrate the software and algorithm used for calculating surface vibration; f. The monitoring vibration threshold level for individual sites. This must be set at 0.75 mm/s unless elevated background vibration at a site means an alternative threshold is appropriate; g. Detail on the conditions which could cause post blast fumes at GOP, the Western Borrow Area, Central Borrow Area, or Eastern Borrow Area, and measures to monitor, and if necessary, manage, post blast fume generation in GOP or any of the borrow areas, <u>including the assessment by video analysis lasting for at least 30 seconds after the last blasthole has fired, and the reporting of fume</u>	the Heilig report identifies as being appropriate in most situations. - Blastechnology



	<u>rating following the AEISG Code of Practice “Prevention and Management of Blast Generated NOx Gases in Surface Blasting”, dated (2011) in the Blast Report for every blast fired in GOP and the borrow pits;</u> h. Further detail on the Amenity Effect Programme required under Condition 34; i. The properties to be surveyed in accordance with Condition 50; and j. Records to be kept, including blast design data.	
<i>Management and Reporting</i>		
46	At the start of each calendar month throughout the period of developing the Wharekirauponga Access Tunnel, the Consent Holder must prepare a two-dimensional plan showing the existing Access Tunnel and the proposed areas where blasting will occur and where the face of the Access Tunnel will progress during that month. The plan must be loaded onto the Consent Holder's website and must also be available for collection in hard copy form from the Waihi Information Centre and Hauraki District Council's Waihi Service Centre. No blasting operations in relation to development of the Wharekirauponga Access Tunnel may take place outside work areas defined on the plan.	
47	In the event that blast monitoring shows that the vibration standards in Conditions 28 - 30 have been exceeded, the Consent Holder must: a. Implement mitigation actions to ensure compliance in accordance with the VMP; and b. Submit a report to the Hauraki District Council within one month of the exceedance event which includes: i. The records for the blast event collected in accordance with Condition 42 (l); and ii. The mitigation actions taken to ensure future compliance.	
48	The Consent Holder must provide a Vibration Summary Report to the Hauraki District Council at three-monthly intervals. The report must include the following: a. Confirmation of blasting actions (including all blasts for maintenance / safety purposes) taken during the previous reporting period; b. All vibration related complaints received during the current reporting period and mitigation actions taken by the Consent Holder;	



	c. Results of vibration monitoring separately for: i. GOP; ii. The Wharekirauponga Access Tunnel; iii. The Willows Road Access Tunnel; iv. The WUG; v. The Western Borrow Area; vi. The Central Borrow Area; and vii. The Eastern Borrow Area. d. All roving monitor data results recorded during the quarter.	
49	Monitoring records, reports and complaint schedules must be stored securely and maintained in a systematic manner for 12 months. Records must be provided to the Hauraki District Council on request.	
<i>Damage to Permanent Dwellings and Associated Structures</i>		
50	Before undertaking any blasting within each Area of this consent, and provided the property owner consents, the Consent Holder must engage an independent structural engineer suitably qualified and experienced in domestic building design and construction (the Engineer) to undertake a structural condition survey for at least five representative properties (non-company owned) located in the vicinity of vibration monitors, and at 'control' properties removed from the influence of any potential vibration effects from mining. The Engineer must: a. Undertake a visual inspection and make video recordings of all existing built surfaces and defects including concrete accessways; and b. Identify, in written reports with accompanying photographs, any noted defects which were apparent at the time of the survey.	This is the same protocol as applies to OGNZLs existing blasting activities in Waihi.
51	a. Upon receipt of a complaint of damage to a permanent dwelling or associated structures suspected by the property owner to be caused from activities authorised by this consent, an appropriately qualified representative of the Consent Holder must investigate and respond to the complaint as soon as is practicable, but no later than five working days later. b. If the property owner does not agree with advice from the Consent Holder's representative, or if the cause of the damage is unclear, the Consent Holder must engage an appropriately qualified independent third party to investigate and report to both the property owner and Consent Holder within 30 working days unless considered urgent by the independent third party in which case the report must be made available as soon as practicable. If the	This is the same protocol as applies to OGNZLs existing blasting activities in Waihi.



	property owner does not agree with the advice or the Consent Holder does not engage a third party then if the Hauraki District Council determines after investigation that a third-party investigation is warranted, the Consent Holder must commission and meet the reasonable costs of that investigation. c. If the advice of the independent third party or the Consent Holder's representative determines that the cause of the damage is attributable to the activities authorised by this consent, then the Consent Holder must remedy the damage at its cost as soon as practicable in accordance with any recommendation by the Consent Holder's representative or by the third party and to the reasonable satisfaction of the property owner. d. If any dispute arises in respect of this condition the matter must be referred to arbitration in accordance with the provisions of the Arbitration Act 1996. An arbitrator shall be appointed by the President of the Institute of Professional Engineers in New Zealand. The arbitrator will be instructed to use their best endeavours to provide their determination within 30 working days of their appointment, unless the Consent Holder and the property owner agree that time shall be extended. In all other respects, the provisions of the Arbitration Act 1996 shall apply. If the property owner chooses not to participate in the arbitration, the Consent Holder will have no further obligations under this condition.	
UNDERGROUND AND SURFACE STABILITY		
51A	<u>Prior to the commencement of stoping, detailed 3D modelling of the final underground mine (WUG) stoping plan shall be conducted to assess the predicted stability of the final crown pillar geometry and provide a prediction of deformation of its surface due to mining. Results are to be provided to the HDC for verification.</u> <u>Stoping in the underground mine (WUG) within Area 1 shall be conducted to ensure ground surface stability is maintained. This shall include at least the following measures:</u> <u>a. Mining methods shall be restricted to those that require all stope voids created or enlarged to be backfilled on completion.</u> <u>b. All surface drillholes passing directly above stopes shall be fully grouted before stoping commences.</u> <u>For the surface directly above stoping, before the commencement of stoping, a satellite scan of the surface topography is to be undertaken at the highest available resolution. Thereafter, scans of the same area are to be undertaken at least every two (2) years.</u> <u>Once stoping commences, a report shall be provided to the Council every two (2) years thereafter to include but not be limited to:</u>	Dalmour Pty Ltd



	a. <u>The cumulative stope void volume and the cumulative volume of backfill placed in stope voids.</u> b. <u>Results from satellite scans presented as contours of cumulative differential surface movement above the stoping area.</u>	
GLADSTONE OPEN PIT GROUND CONTROL MANAGEMENT PLAN		
51B	<u>Prior to the commencement of GOP mining, the Consent Holder must submit a Ground Control Management Plan (GCMP) for the Gladstone Open Pit for certification under Condition C5.</u> <u>Certification is required to verify that the GCMP:</u> a. <u>Includes actions and methods as appropriate to meet the Purpose below; and</u> b. <u>Addresses the Actions required below.</u> <u>Purpose</u> a. <u>To further define and confirm geotechnical properties of materials, structures and groundwater conditions</u> b. <u>To identify areas of pit walls with potential stability issues, and</u> c. <u>To define potential remedial treatments for those areas.</u> <u>Actions required</u> <u>The Ground Control Management Plan shall include at least the following measures:</u> a. <u>A detailed staged pit development plan to allow rock mass conditions, geological structures and geology to be confirmed before committing to the final pit crest position and specifications of overall pit slopes.</u> b. <u>A series of hold points to reassess and confirm slope designs.</u> c. <u>A network of installed piezometers must be in place around the pit before mining commences to measure groundwater levels and pore water pressures.</u> d. <u>Definition of fault and shear characteristics and continuity.</u> e. <u>Confirmation of strength characteristics of pit wall materials.</u> f. <u>A plan of horizontal drain holes around the pit wall.</u> g. <u>Details of horizontal grading of benches to direct rainfall runoff.</u>	Dalmour Pty Ltd



	<u>h. Stability conditions in areas of potential slope instability and proposed remediation treatment measures to be applied to those during mining.</u>	

LIGHTING

52	Any night lighting established in Areas 2, 4, 5, 6 and 7 must be designed and installed in order that the level of lighting measured at the boundary of any site not owned by the Consent Holder or related company, or not subject to an agreement with the Consent Holder or related company, is no greater than 8.0 lux. This condition does not apply to any street light installed for safety purposes insofar as it causes light spill on a public road.	
53	Where luminaires are visible from external locations or are high output floodlights: a. They must be installed such that their light producing faces are horizontal to the ground; or b. Luminaires must be aimed away from external locations, i.e. into the site, or c. They must be of luminous intensity not exceeding the limits set out for the applicable environmental zone in AS/NZS 4282 "Obtrusive effects of outdoor lighting" or any subsequent version (in which case the latter standard prevails)..	
54	Lighting associated with locations within Area 1 must be designed and installed in accordance with the National Light Pollution Guidelines for Wildlife published by the Australian Government's Department of Climate Change, Energy, the Environment and Water, version 2.0, May 2023 or any subsequent version (in which case the latter version prevails).	
<u>54A</u>	<u>At least 20 working days prior to the commencement of activities authorised by this consent, the Consent Holder shall submit a Lighting Management Plan to the Hauraki District Council for certification. The Lighting Management Plan must:</u> <u>a. Set out the requirements for all fixed, mobile, and construction artificial lighting to be used,</u> <u>including:</u> <u>(i) Set out the Plan purpose</u> <u>(ii) Reference to applicable legislation and standards</u> <u>(iii) Identify key roles and responsibilities</u> <u>(iv) Requirements for lighting design and installation to balance operational and safety requirements with best practice lighting design in</u>	Kern Consultants Limited



	<u>cognisance of Hauraki District Plan requirements, AS/NZS 4282: 2023 “Control of the obtrusive effects of outdoor lighting” and The Australian Government’s “National Light Pollution Guidelines for Wildlife”</u> <u>(v) Plant location and luminaire directions/aiming to minimise spill light and glare effects i.e. aim lights away from dwellings, roadways and sensitive ecological areas.</u> <u>(vi) Limiting the intensity/output of light fittings.</u> <u>(vii) Tilt light fittings downward.</u> <u>(viii) Install light shields where necessary.</u> <u>(ix) Avoid high points which are visible outside of the Willows Road site.</u> <u>(x) Install blinds to windows and glass doors where site support facilities (e.g. Portacombs) are to be used after dark.</u> <u>b. Identify how lighting throughout the project will be minimised as far as practicable, so it meets the permitted standards of the relevant zone and effects on the night sky.</u> <u>c. Include the placement and direction of lights to avoid high points which are visible outside of Area 2.</u> <u>d. Identify where light shields should be used where necessary, and all lighting shall be down facing to minimise effects on the night sky</u> <u>e. Identify specific operational requirements</u> <u>f. Include Lighting Audit Requirements and Periodic Review</u> <u>g. Be prepared by a suitably qualified and experienced lighting professional</u>	

LANDSCAPE MITIGATION

55	In addition to the requirements of the ELMP, and rehabilitation and closure requirements specified in Conditions C60 – C69 of Schedule One, the Consent Holder must comply with the following: a. In Area 1: - All buildings and fixed structures within the Coromandel Forest Park must be finished in recessive, natural colours and/or cladding materials that minimise their visual prominence and enable them to blend with the surrounding landscape. Colour from Groups A and B of BS 5252 Colour Range, that do not exceed a Light Reflectance Value (LRV) of 32 are suitable. - At the completion of the ventilation evasé construction activities at each location in Area 1, the Consent Holder must remove all materials including rubbish, equipment and	



	structures associated with the ventilation easé construction activities (except the ventilation easé, supporting foundations, perimeter fencing and signage). All areas of bare earth or ground disturbance resulting from the construction of the easé shall be stabilised and revegetated as soon as practicable following completion of construction, using the species identified in by the ecological survey for each site (refer Condition 139) and in a manner consistent with the ELMP-WUG. <u>Advice Note: The intent of (i) is to ensure that all buildings and structures within the park are visually, unobtrusive. The use of alternative colours, that achieve this intent may be considered.</u> b. In Area 2: i. Existing shelterbelts, trees and hedges at the Willows SFA outside disturbed areas must be retained where it is practicable to do so; ii. Upon completion of construction, the noise bunds and the earth mounding at the explosives magazine shall be grassed as soon as possible to prevent soil erosion, with the subsequent planting of native terrestrial planting (in accordance with the <i>Proposed Integrated Mitigation Planting Stages - WUG Surface Facilities Area Plan – Figure A</i>) to occur no later than the first planting season following construction. <i>Advise note: Stabilisation is expected to occur by using either a tackifier or similar adhesive product applied to bind the soil together to help prevent erosion while grass or planting becomes established, or by mechanical means such as biodegradable fibrous matting</i> iii. Cuts and batters for access roads must be contoured to visually integrate within the adjoining natural landform and all exposed soil must be scarified and seeded with pasture and/or native vegetation to assimilate within the surrounding land cover; and vi. All buildings and fixed structures must be finished in recessive, natural colours and/or cladding materials that minimise their visual prominence and enable them to blend with the surrounding landscape. Colour from Groups A and B of BS 5252 Colour Range, that do not exceed a Light Reflectance Value (LRV) of 32 are suitable. <u>Advice Note: The intent of (vi) is to ensure that all buildings and structures are visually, unobtrusive. The use of alternative colours, that achieve this intent may be considered.</u> c. In Area 5:	



	i. Removal of the landform to construct the GOP must be undertaken from east to west with the objective of concealing the works from wider views to the south west of the activity; ii. New and replacement structures within the Waihi SFA must be finished in the same colour palette as the existing structures in that Area; iii. All areas of plantation pine, including the established pine trees on Winner Hill, shall be retained for the duration of mining in the Gladstone Pit; iv. Following the completion of the mining of the GOP and concurrent with the backfilling of the GOP pit with tailings, the existing plantation pines shall be removed and replaced with native vegetation in accordance with the ELMP-WA; and v. On completion of backfilling, the GOP tailings storage area shall be contoured to integrate with the surrounding natural landscape in accordance with the ELMP-WA. <i>Advise note: The final landform surrounding the pit is intended to be re-established in pasture and native shrubs in a way that offers further opportunities to assimilate the modified landform within a working rural landscape.</i> d. In Area 6: i. Temporary topsoil stockpiles must be seeded in pasture grass as soon as possible following their establishment and maintained in pasture until required for rehabilitation. e. In Area 7: i. Temporary topsoil stockpiles must be seeded in pasture grass as soon as possible following their establishment and maintained in pasture until required for rehabilitation; ii. Vegetation proposed to be removed in SNA T13UP166, and along existing watercourses must be replaced in accordance with the ELMP; iii. Rehabilitation of the TSF3 embankment surface must occur progressively as practicable areas become available. This must include the provision of a rooting medium suiting to the establishment of pasture, shaping of the embankment to ensure it integrates with the adjacent landform, and drainage as necessary to ensure the establishment and maintenance of a stable surface that protects water quality and prevents soil erosion; iv. Rehabilitation of the TSF 3 tailings deposition area with native wetland plants at the completion of tailings operations. Prior to this occurring the Consent Holder shall submit to the	



	Council for certification, a TSF3 Wetland Restoration Plan in accordance with Condition C5(o) of Schedule One. The plan shall identify the location of the planting and a schedule of plants that identifies the species to be used (botanical and common names), the number or percentage mix of each species, size at time of planting and spacing; and v. Unless otherwise agreed in writing by the Hauraki District Council, the Consent Holder must revegetate the lift undertaken in the previous season (i.e. the lift undertaken in the previous season is to be revegetated while the current season's lift is being undertaken).	
<i>Buildings in Area 2, Area 5 and Area 6</i>		
56	The location, height and form of any new building established within Area 2, Area 5 and Area 6 must be consistent with those shown in Attachment 4 of this consent (Drawings showing the location, layout and form of new buildings in Area 2, Area 5 and Area 6).	
57	To demonstrate compliance with Condition 56 the Consent Holder must: a. Supply construction drawings for all new buildings within Area 2, Area 5 and Area 6 to the Hauraki District Council prior to commencement of construction activities in each of those areas; and b. On completion of construction activities in each of Areas 2, Area 5, and Area 6, supply written confirmation stating that the buildings within that Area have been constructed in accordance with the design referred to in (a).	

HAZARDOUS SUBSTANCES

58 A	~~All hazardous substances must be stored in bunded containment in accordance with the relevant requirements of the Health and Safety at Work (Hazardous Substance) 2017 regulations (HSW-HS) or the Environmental Protection Authority's Hazardous Substances (Hazardous Property Controls) Notice 2017 ("EPA Notice"), as applicable, or any subsequent version of those documents (in which case the latest document prevails):~~ ~~This condition does not apply to the use of portable jerry cans which are necessary for refuelling in emergency situations:~~	Resource Consulting
58B	Secondary containment of pooling hazardous substances shall ensure effective containment at all times. This includes provisions for stormwater which requires either containment capacity in addition to	Resource Consulting



	minimum workplace safety requirements and the ability to manually drain stormwater or roofing where appropriate to prevent stormwater from entering the secondary containment system. <u>Advice note: The minimum containment requirements for relevant hazardous substances in accordance with the Health and Safety at Work (Hazardous Substance) 2017 Regulations (HSW-HS) or the Environmental Protection Authority's Hazardous Substances (Hazardous Property Controls) Notice 2017 ('EPA Notice'), or any subsequent version of these documents (in which case the latest document prevails), apply regardless.</u>																		
58C	Any hazardous substance emergency which has the potential to adversely affect people, or the environment must be reported to the Hauraki District Council at the earliest opportunity, including the type of emergency, remedial action undertaken, and any further actions required to fully restore conditions before the emergency.																		
59	a. Any hazardous substance spill above ground which is greater than 20 litres must be reported to the Hauraki District Council at the earliest opportunity, including the amount spilled, remedial action undertaken, and any further actions required to fully remediate the site. b. If any spill set out in Condition 59(a) occurs in Area 1, these are to be reported to the Department of Conservation at the earliest opportunity, including the amount spilled, remedial action undertaken, and any further actions required to fully remediate the site.																		
60	A spill kit must be held at each working area at all times and used immediately should a spill occur.																		
61	The volumes of the hazardous substances in each Area must not exceed the following maximum values. a(i). Area 1: Underground: <table border="1"> <thead> <tr> <th>Substance</th><th>Maximum Volume</th><th>Storage Location</th></tr> </thead> <tbody> <tr> <td>ANFO (UN 0082)</td><td rowspan="3">6,100 kg</td><td rowspan="3">Underground explosives magazines (max 1,000 kg in any chamber)</td></tr> <tr> <td>Booster (UN 0042)</td></tr> <tr> <td>Packaged explosive (UN 0241)</td></tr> <tr> <td>Detonators (UN 0030 / UN 0456 / UN 0360)</td><td>100 kg (100,000 articles)</td><td>Underground chamber (separate to others)</td></tr> <tr> <td>Diesel</td><td>6,000 L</td><td>Underground</td></tr> <tr> <td>Ammonium nitrate emulsion (ANE)</td><td>34,000 kg</td><td>Oxidiser storage area – underground</td></tr> </tbody> </table>	Substance	Maximum Volume	Storage Location	ANFO (UN 0082)	6,100 kg	Underground explosives magazines (max 1,000 kg in any chamber)	Booster (UN 0042)	Packaged explosive (UN 0241)	Detonators (UN 0030 / UN 0456 / UN 0360)	100 kg (100,000 articles)	Underground chamber (separate to others)	Diesel	6,000 L	Underground	Ammonium nitrate emulsion (ANE)	34,000 kg	Oxidiser storage area – underground	
Substance	Maximum Volume	Storage Location																	
ANFO (UN 0082)	6,100 kg	Underground explosives magazines (max 1,000 kg in any chamber)																	
Booster (UN 0042)																			
Packaged explosive (UN 0241)																			
Detonators (UN 0030 / UN 0456 / UN 0360)	100 kg (100,000 articles)	Underground chamber (separate to others)																	
Diesel	6,000 L	Underground																	
Ammonium nitrate emulsion (ANE)	34,000 kg	Oxidiser storage area – underground																	



Gasser	4,000 L	Gasser storage area - underground
Oils, greases	8,000 L	Workshop stores – underground

a(ii). Area 1: Surface drill sites:

Substance	Maximum volume	Storage Location
LPG	9 kg	Segregated from all flammable liquids or solids and oxidising substances
Diesel	1,500 L	Bunded storage at drill site
Petrol	40 L	Bunded storage at drill site
Maintenance oils	80 L	Bunded storage at drill site
Grease	6 kg	Bunded storage at drill site
Soda ash (sodium carbonate)	15 kg	No specific requirements
Trigene disinfectant	10 L	No specific requirements

b. Area 2:

Substance	Maximum Volume	Storage Location
ANFO (UN 0082)	7,350 kg	Explosive magazines compound (max 1,300 kg in any magazine)
Booster (UN 0042)		
Packaged explosive (UN 0241)		
Detonators (UN 0030 / UN 0456 / UN 0360)	10 kg (10,000 articles)	Explosive magazine (separate to others)
Diesel	80,000 L	Services bay
	6,000 L	Underground
	550 L	Generator tank
	150 L	Fire pump
Ammonium nitrate emulsion (ANE)	40,800 kg	Oxidiser storage area



Gasser	8,000 L	Oxidiser storage area
Lime	70,000 kg	Lime silo
Oxygen gas	60 m ³	Workshop located in the SFA
Acetylene gas	20 m ³	Workshop located in the SFA
Oils, greases	8,000 L	Workshop stores
Waste oils	6,000 L	Workshop stores

c. Area 5:

Substance	Maximum Volume	Storage Location
High calcium hydrated lime	306,000 L	Three tanks (102,000 L each) at the north of the WTP
High calcium quicklime	70,000 kg	Silo west of the Processing Plant
Caustic soda (Sodium hydroxide)	24,000 L	Tanks on the western side of the electrowinning area.
Hydrochloric Acid (>25%)	24,000 L	Tanks on the western side of the electrowinning area.
Ammonium nitrate emulsion (ANE)	20,400 kg	Oxidiser storage area (north of the WTP)
Oxygen gas	30,000 L	Cryogenic pressure vessel, east of the Processing Plant.
Carbon Dioxide	40,000 kg/L	Two cryogenic pressure vessels in the WTP
Diesel	200,000 L	Various units: Self-bunded isotainers (20,000 L) or portable tanks (<6,000 L)
Workshop Maintenance oils and greases*	8,000 L	Various units (tank, IBC or 205 L drum) located at the workshop
Waste oils	6,000 L	Various units (tank, IBC or 205 L drum) located at the workshop
Transformer oil	8,640 L	Bunded transformer units: two 3,500 L transformers and one 1,740 L transformer.
Cyanide (Liquid 30%)	112,000 L	Tank within the Processing Plant. Located on the eastern side of the reagent storage.
Cyanide (solid)	77,180 kg	Boxed storage within the Processing Plant. Located on the eastern side of the reagent storage.



	Ferric chloride	30,000 L	Two tanks (20,000 L and 10,000 L) in the WTP
	Hydrogen peroxide	35,000 L	Two tanks (17,500 L each) in the WTP
	Mercury	10 kg	Recovered at the condenser in the Gold Room (Electrowinning Building) through the retort processes
	d. Area 6:		
	Substance	Maximum Volume	Storage Location
	ANFO (UN 0082)	6,400 kg NEQ	Surface magazines – Split between 5 magazines
	Booster (UN 0042)		
	Packaged explosive (UN 0241)		
	Detonators (UN 0030 / UN 0456 / UN 0360)	12,000 units (12 kg NEQ)	In one magazine
	LPG	80,000 L	Two pressure vessels (40,000 L each), east of the Processing Plant (across the Ohinemuri River), adjacent to Baxter Road.
<i>Hazardous Substances Management Plans</i>			
62	The Consent Holder must submit for certification under Condition C5 of Schedule One a Hazardous Substances Management Plan covering the storage and use of hazardous substances in Areas 1, 2 and 5, and 6 no later than 30 working days prior to the commencement of activities in the respective Area. Certification is required to verify that the Hazardous Substances Management Plan:		Resource Consulting



	a. Includes actions, methods and monitoring programmes as appropriate to meet the objective in Condition 63; and b. Satisfies the requirements in Condition 64. <i>Advice Note: A Hazardous Substances Management Plan may be submitted for Areas 1,2, 5 and 6 combined, or for each area separately.</i>	
63	The objective of the Hazardous Substances Management Plan is to identify details of hazardous substances to be stored and used, containment methods, management of spills/leaks and any emergency precautions.	
64	The Hazardous Substances Management Plan must include, as a minimum: a. Details of the nature and quantities and locations of hazardous substances to be stored; b. Means of containment; c. Incident reporting procedures; d. Spill response plan(s); e. Emergency response procedures.	

PROPERTY PROGRAMME

65	At least three months prior to the Wharekurauponga Access Tunnel first passing immediately beneath any land not owned by, or under the control of the Consent Holder, the Consent Holder must offer to provide a one-off ex gratia payment to that land owner equal to 5% of that land's market value. The location of any mining operation, and in particular whether any obligation under this condition has been triggered, must be determined by reference to the plan of existing and proposed operations required under Condition 46. This condition does not apply to land administered by the Department of Conservation or road reserves administered by the New Zealand Transport Agency or Hauraki District Council. <i>Advice Note: For the avoidance of doubt, once the Consent Holder has made an offer in relation to a residential property in accordance with Condition 47 or 48, the consent holder may commence mining activities beneath that residential property.</i>	
66	For the purpose of Condition 65, "market value" is the value determined by a registered valuer at the time of making the valuation, ignoring the	



	announcement of, and the existence / operation of the WNP, but including sales data from outside Waihi if appropriate, and any other relevant information.	
67	The determination of market value required by Condition 66 must be undertaken by two independent registered valuers paid for by the Consent Holder. The registered proprietor must be given the option of selecting one of the valuations.	
68	A recipient of an ex gratia payment made under Condition 65 shall be eligible for the Amenity Effect Programme pursuant to Conditions 35 - 42.	
69	The processes described in Condition 65 must be managed by an independent third party engaged and funded by the Consent Holder.	
70	Conditions 65 - 69 do not apply if the Consent Holder and the landowner have entered into a separate agreement that constitutes an agreement for the purposes of these conditions.	
71	Within three months of the commencement of this consent, and annually thereafter until all offers required under Condition 65 have been made, the Consent Holder must provide a report to Council on the offers made, unless the property owner concerned requests privacy, in which case the offer, but not the ownership or property details, must be reported.	

TRANSPORT

<i>Willows Road Upgrades</i>		
72	The Consent Holder must upgrade Willows Road and the intersection of State Highway 25 and Willows Road at its cost in accordance with Conditions 73 and 74: a. Prior to heavy vehicle movements as measured at the entrance to the Willows SFA reaching greater than 40 vehicle movements per day; or b. No later than six months after any construction activity listed in Condition 6 begins in Area 2; whichever occurs first. The Consent Holder must: c. Submit final designs for the upgrades to the Hauraki District Council for certification that they meet the requirements of Conditions 73 and 74 prior to commencing the upgrade works, including the	



	results of the independent design safety audits required by Conditions 73 and 74; and d. Provide documentary evidence that the upgrades certified under (c) have been completed. The Consent Holder must maintain a log of vehicles at the Area 2 access gate for the first six months of construction or until the upgrades required by this condition are complete, whichever occurs first. The vehicle log must be provided to the Hauraki District Council on request.	
73	Unless the New Zealand Transport Agency provides written confirmation that one or both of these upgrades is not required, the upgrade of the intersection of Stage Highway 25 and Willows Road must include: a. A right turn bay into Willows Road from SH25 which meets the minimum requirements of the New Zealand Transport Agency <i>Traffic Control Devices Manual Part 4 (Intersections) Version 1 December 2020 Section 15</i> (including <i>Figure 15.5 "Markings for right turn bays in rural areas"</i>) or any subsequent version of the guideline (in which case the latter prevails) and meets the New Zealand Transport Agency requirements for forward visibility; and b. Widening the left turn shoulder into Willows Road from SH25 to 2.5 m in accordance with Diagram E in the NZTA Planning Policy Manual version 1 2007 or any subsequent version of that standard (in which case the latter prevails). The design of the proposed upgrade of the intersection between SH25 and Willows Road must be subject to an independent design safety audit and post construction safety audit. Those audits are to be carried out by safety auditors experienced in highway intersection design, appointed in consultation with the New Zealand Transport Agency. Any changes recommended as a result of the safety audits, including design changes and post construction changes, must be implemented by the Consent Holder provided they are agreed to by the Hauraki District Council and the New Zealand Transport Agency.	
74	The design of the proposed upgrade of Willows Road must be subject to an independent design safety audit and post construction safety audit. Those audits are to be carried out by safety auditors experience in highwater intersection design, appointed in consultation with the New Zealand Transport Agency. Any changes recommended as a result of the safety audits, including design changes and post construction changes, must be implemented by the Consent Holder provided they are agreed to by the Hauraki District Council and the New Zealand Transport Agency. The upgrade of Willows Road must include:	



	a. Marking a road centreline over the full length of road; b. Any curve seal widening identified in the safety audit as being necessary to ensure safety and that the design vehicle is able to negotiate all curves within its lane; c. Upgrading the single lane bridge approaches in accordance with the specifications for single lane bridge approaches and controls in <i>New Zealand Transport Agency Traffic control devices manual (Part 5) Version 1 December 2020</i> or any subsequent version of the guideline (in which case the latter prevails). ; d. Constructing a 6.0m wide sealed road extension between the end of the existing two way section of the road and the proposed site access in accordance with the Hauraki District Council Engineering Manual; e. Installing a roadside barrier system on both sides of the road at the culvert located 0.4 km from the Willows Road / State Highway 25 intersection (labelled no. 40) or, alternative safety measures installed to the satisfaction of the Hauraki District Council's Transportation Manager; and f. Constructing a turning head at the northern end of the existing two-lane road or at the proposed access location to allow the public to turn around.	
<i>Willows Road Maintenance</i>		
75	At least two months prior to the commencement of construction activities in Area 2, and prior to commencing the upgrade of Willows Road required by Condition 72, the Consent Holder must engage a suitably qualified and experienced road maintenance engineer to prepare a programme to assess and record the condition of the existing road pavement and bridge on Willows Road. This programme must be submitted to the Hauraki District Council for certification before the assessment is conducted. The inspection and recording of the road pavement condition, and bridge condition, must be undertaken in consultation with the Hauraki District Council's Transportation Manager. The pavement condition rating (including vehicle counts) is to be used as the baseline for assessing the works required to return the road pavement to at least its standard / condition prior to the commencement of the construction of the Willows SFA.	
76	For the period from construction of the Willows SFA to final closure and restoration, the Consent Holder must, in conjunction with a Council representative, undertake a road pavement inspection of Willows Road annually or at such other intervals as may be agreed in writing by the Hauraki District Council.	



77	The Consent Holder must reimburse the Hauraki District Council for the cost of any road pavement maintenance (potholes / surface rutting etc) caused by the activities authorised by this consent. The maintenance cost will be calculated on a pro-rata basis against the baseline heavy vehicle traffic volumes and taking into account any financial assistance received by Council for maintenance.	
78	At the completion of the rehabilitation and closure of Area 2, and where not otherwise reimbursed in accordance with Condition 77, the Consent Holder must return the road pavement condition of Willows Road to that identified in the road pavement condition survey carried out in accordance with Condition 75 of this consent at the Consent Holder's expense and to the satisfaction of the Hauraki District Council.	
<i>Baxter Road</i>		
79	At least two months prior to the commencement of construction activities in Areas 5, 6 or 7, the Consent Holder must engage a suitably qualified and experienced road maintenance engineer to prepare a programme to record the condition of the existing road pavement and bridge on Baxter Road. This programme must be submitted to the Hauraki District Council for certification before the assessment is conducted. The inspection and recording of the road pavement condition, and bridge condition, must be undertaken in consultation with the Hauraki District Council's Transportation Manager. The pavement condition rating (including vehicle counts) is to be used as the baseline for assessing the works required during the period in which mining operations authorised by this consent are occurring, to return the road pavement to at least its standard / condition prior to the commencement of the construction works in Areas 5, 6 or 7.	
80	The Consent Holder must, in conjunction with a Council representative, undertake an annual road pavement inspection of Baxter Road during the term of the consent.	
81	The Consent Holder must reimburse the Hauraki District Council for the cost of any road pavement maintenance (potholes / surface rutting etc) on Baxter Road caused by the activities authorised by this consent. The maintenance cost will be calculated on a pro-rata basis against the baseline heavy vehicle traffic volumes and taking into account any financial assistance received by Council for maintenance.	
82	At the completion of construction works at Areas 5, 6 and 7, and where not otherwise reimbursed in accordance with Condition 81, the Consent Holder must return the road pavement condition of Baxter Road to that identified in the road pavement condition survey carried out in accordance with Condition 79 of this consent at the Consent Holder's expense and to the satisfaction of the Hauraki District Council.	



<i>Parking</i>		
83	The Consent Holder must provide sufficient off street parking to accommodate all expected staff, contractor and visitor vehicles entering the Mine Site, in order that those persons will not need to park in public areas.	
<i>Construction Traffic Management Plan</i>		
84	For each Area described in Condition C1(a) of Schedule One the Consent Holder must submit a Construction Traffic Management Plan for certification under Condition C5 of Schedule One. Certification is required to verify that the Construction Traffic Management Plan: - Includes actions, methods and monitoring programmes as appropriate to meet the objectives in Condition 85; and - Satisfies the requirements in Condition 86. <i><u>Advice Note:</u> Construction Traffic Management Plans may be submitted for each Area separately or multiple Areas combined.</i> <i>Advice Note: While no direct traffic access provisions are associated with Areas 1 and 3 of the project, the Construction Traffic Management Plan(s) are to provide coverage of matters relating to the transportation of workers to and from these areas (including parking provisions for these workers).</i>	
85	The objectives of the Construction Traffic Management Plan are to set out how the Consent Holder will manage traffic to and from each Area to: - Protect public safety; and - Minimise delays to road users.	
86	The Construction Traffic Management Plan must include, as a minimum: - Details of how legislative requirements and consent conditions in relation to construction traffic will be satisfied; - The proposed construction programme, traffic volumes and routes; - Driver protocols; - Measures to manage over-weight and over-dimension loads; - Measures to maintain access to manage effects on adjacent properties and farm operations, including stock crossings; - School bus routes and timetables; - Communication arrangements;	



	h. Monitoring requirements (including in relation to road pavements); i. Management measures for work within the public road corridor, including; i. To manage existing road users with respect to construction traffic associated with work in the road corridor; ii. To ensure that all roads remain open to traffic at all times, except where temporary traffic control may be employed to partially close lanes or shoulders, provided that any traffic delays do not exceed five minutes at any one time during the day, or a cumulative period of 30 minutes within an hour, unless otherwise agreed upon with the Consent Authority. When the site is unattended the maximum length of single lane shall be managed by automated signals to minimise delays to less than one minute; iii. To ensure access to properties is maintained at all times unless otherwise agreed with the property owner; j. Measures to manage arrivals and departures over the construction period, including: i. Monitoring of traffic distribution and performance at the intersection of Baxter Road and State Highway 2 during periods of high traffic volume; and ii. An adaptive management approach which triggers modification of management measures where monitoring shows the acceptable levels of service at the intersection are not being achieved; k. Management of aggregate cartage routes, including any necessary measures relating to the use of Crean Road by heavy vehicles travelling to and from Areas 5, 6 and 7 via Baxter Road; l. Identification and provision of adequate on-site (or offsite) parking for each Area for the project duration to ensure compliance with Condition 83; m. Measures to facilitate and manage the bussing of shift workers to the Willows Road Surface Area Facilities located in Area 2; n. Management of deliveries to each Area; and o. For Areas 5, 6 or 7, management of any use of Moore Street to gain access in the event of a flooding event should this be required.	
<i>Kenny Street Carparking</i>		
87	No later than 30 working days prior to enlarging the Kenny Street carpark, the Consent Holder must submit a Kenny Street Carpark	



	Subsidence Hazard Zone Management Plan for certification under Condition C5 of Schedule One. Certification is required to verify that the Kenny Street Carpark Subsidence Hazard Zone Management Plan includes monitoring, trigger levels, warning systems, Standard Operating Procedures, assembly areas, and emergency action plans to ensure the safety of people.	
88	The Consent Holder must maintain a secure fence around the carparking area that prevents public access.	

HERITAGE FEATURES

89	The Consent Holder must maintain a representative photographic record of any pre-1900 workings encountered as part of the mining activities authorised by this consent and must use its best endeavours to retrieve items from the historic workings that might be useful for displays and interpretation, subject to the safety of staff and the mining activities being undertaken.	

SITE MANAGEMENT PLAN (CONTAMINATED LAND)

90	The Consent Holder must submit a Site Management Plan - Contaminated Land for each Area other than Areas 1 and 3 for certification under Condition C5 of Schedule One. Certification is required to verify that the Site Management Plan – Contaminated Land: - Includes actions, methods, monitoring programmes and trigger levels as appropriate to meet the objective in Condition 91; and - Satisfies the requirements in Condition 92.	
91	The objective of the Site Management Plan - Contaminated Land is to specify suitable management measures to avoid, remedy or mitigate and, in any event, minimise to the greatest extent practicable, the risks from soil disturbance to the following: - the health of workers; - the on-site environment; and - the off-site environment (including the health of neighbouring site users).	



92	The Site Management Plan - Contaminated Land must be prepared by a suitably qualified and experienced professional in accordance with Contaminated Land Management Guideline No.1: Reporting on Contaminated Sites in New Zealand, Ministry for the Environment (revised 2021) or any subsequent version of the guideline (in which case the latter prevails). The Site Management Plan – Contaminated Land must include, as a minimum: a. A summary of the known site history, identified HAIL areas and expected contamination conditions as well as the investigation methodology for sampling to be undertaken prior to works commencing in the identified HAIL areas; b. The contaminated land-related soil management requirements; and c. The contaminated land-related procedures to guide contractors in materials management, reuse, disposal, health and safety and response to unexpected contamination encounters.	

SOCIAL IMPACT ASSESSMENT CONDITIONS

<i>Waihi Skills Development and Training Action Plan</i>		
93	The Consent Holder must establish <u>implement and monitor</u> a Waihi Skills Development and Training Action Plan. <u>a. The Consent Holder must invite stakeholders (as per Condition 96c) to work in partnership as the Waihi Skills Development and Training Action Group. The Group shall determine the frequency of meetings, and any working groups if required, and how it will meet the requirements set out within Conditions 94-99.</u>	Quigley & Watts Ltd
94	The Waihi Skills Development and Training Action Plan referred to in Condition 93 must be submitted for certification under Condition C5 of Schedule 1 no later than ~~18~~ 6 months after the commencement of this consent. <u>The plan must be updated annually, with special consideration of WUG Development (from year three) and OGC operations (from year nine).</u> Certification is required to verify that the Waihi Skills Development and Training Action Plan: a. Includes actions, methods and monitoring programmes as appropriate to meet the objectives in Condition 95; and b. Satisfies the requirements in Condition 96.	Quigley & Watts Ltd



95	The objectives of the Waihi Skills Development and Training Action Plan are <u>to work in partnership with the Waihi Skills Development and Training Action Group</u> to: a. enhance ~~local~~ skills <u>of Waihi individuals</u>; ~~and~~ b. increase <u>Waihi local</u> workforce participation~~;~~ c. <u>support small Waihi businesses to upskill their staff and improve processes so that small local businesses are able to meet OGNZL's procurement and operational requirements; and</u> d. <u>stimulate the local economy.</u>	Quigley & Watts Ltd
96	The Waihi Skills Development and Training Action Plan must include, but need not be limited to: a. Preparation of a skills matrix that identifies workforce requirements and skills needed by the Consent Holder and its suppliers in relation to mining activities in and around Waihi; b. Identification of work areas where the skills identified pursuant to (a) are in short supply; c. Collaboration to be undertaken with secondary and tertiary education providers, relevant transitional industry training organisations, iwi/ hapū entities, <u>local employers and suppliers</u>, and with relevant government <u>and local government</u> agencies to facilitate targeted training for secondary students and currently unemployed persons <u>and others</u> to develop skill sets, <u>micro-credentials and certificates</u> that will enable them to <u>contribute to enhance</u> the local workforce servicing the Waihi mining activities (directly and indirectly through suppliers); d. Identification of work experience opportunities for <u>people trainees and tertiary students</u> who meet the Consent Holder's employment and health and safety requirements; e. A detailed programme of activity which identifies how and when opportunities for local skills development and training for the <u>duration of the project first 3 years following the commencement of activities authorised by this consent are likely to be offered and implemented</u>; f. Measurable and time bound performance targets and associated monitoring, including specific indicators of tangata whenua participation <u>and achievements</u>, for determining Plan effectiveness; ~~and~~ g. The reporting and review process for the Plan~~;~~ h. <u>A programme of activity which identifies how and when local businesses will be supported to build capacity to bid for contract work/services, achieve necessary certification, create capability statements, and facilitate networking; and</u>	Quigley & Watts Ltd



	<u>i. For people gaining employment via the Waihi Skills Development and Training Action Plan, identify what social support may be required within the first 6-12 months of employment, and who will deliver those.</u>	
97	The Waihi Skills Development and Training Action Plan may be reviewed and updated at any time by the Consent Holder.	
98	Any version of the Waihi Skills Development and Training Action Plan revised under Condition 97 must be submitted for certification in accordance with Condition C.8.	
99	~~The Consent Holder must incorporate the objectives and performance indicators associated with the Waihi Skills Development and Training Action Plan into the Social Impact Management Plan required by Condition 104 and report performance against them in the monitoring report required by Condition 108.~~ <u>The Consent Holder must provide an annual report to the Hauraki District Council 12 months after provision of the Waihi Skills Development and Training Action Plan under Condition 92, and annually thereafter, which reports on:</u> <u>a. The development, activities, limitations and achievements of the Waihi Skills Development and Training Action Group.</u> <u>b. Determination of the effectiveness of the Waihi Skill Development and Training Action Plan with respect to the objectives and performance indicators:</u> <u>c. The making of recommendations to further enhance the Waihi Skills Development and Training Action Plan.</u> Every three years, the Consent Holder must undertake a process, impact and outcome evaluation of the Waihi Skills Development and Training Action Plan, independent of the company and existing service providers to determine what is working well, less well, and make recommendations for change.	Quigley & Watts Ltd
<i>Workforce Accommodation Assessment</i>		
100	The Consent Holder must submit a Workforce Accommodation Assessment for certification under Condition C5 of Schedule One <u>within six months of granting of this consent and every two years following at least six months prior to commencement of each of the following:</u> <u>a. Mine development and production; and</u> <u>b. Mine remediation and closure activities.</u>	Quigley & Watts Ltd



	Certification is required to verify that each Workforce Accommodation Assessment: i. Includes actions, methods and monitoring programmes as appropriate to meet the objective in Condition 101; and ii. Satisfies the requirements in Condition 102.	
101	The objectives of the Workforce Accommodation Assessment are to: a. analyse local accommodation supply in relation to workforce demand ~~including Fly-In Fly-Out workers; and;~~ b. reduce as far as practicable the extent to which the activities authorised by this consent contribute to any local accommodation shortages; c. <u>assess actual effects and future effects on availability and capacity of:</u> i. <u>Emergency accommodation;</u> ii. <u>Temporary accommodation e.g., motels;</u> iii. <u>Homes to buy;</u> iv. <u>Rental affordability, with a particular need to consider low income people</u> d. <u>analyse company policies, procedures and practices that contribute to safe worker travel;</u> e. <u>assess the risk of road traffic accidents for workers travelling to/from their day-to-day accommodation at the end of their shift, and for their start/end-of rotation travel back to their distant home;</u> f. <u>reduce as far as practicable the extent to which the activities authorised by this consent contribute to road traffic accidents by mine workers travelling to/from their day-to-day accommodation at the end of their shift, and for their start/end-of rotation travel back to their distant home.</u>	Quigley & Watts Ltd
102	The Workforce Accommodation Assessment must include, as a minimum: a. An analysis ~~of actual availability, and future of the~~ availability and <u>capacity</u> of housing and accommodation in the local area <u>and within the township of Waihi, a 30km radius, and 60-minute commute area;</u> b. An analysis of <u>actual requirements, and future</u> workforce requirements for the activities authorised by this consent and any projected population changes attributable to those activities, including an estimate of <u>the number of</u> workers and their households who may live in, or move into, the local area <u>and within</u>	Quigley & Watts Ltd



	<u>the township of Waihi, a 30km radius, and 60-minute commute area;</u> c. An assessment of the <u>actual capacity and future</u> accommodation capacity in the local area <u>and within the township of Waihi, 30km radius, and 60-minute commute area</u> to accommodate the workforce, including the long and short term housing market and seasonal impacts, <u>and the significance of the contribution to any housing impacts; and</u> <u>d. An assessment of company policies, procedures, and travel to work options for their contribution to safe travelling to/from their day-to-day accommodation at the end of their shift, and for their start/end-of rotation travel back to their distant home;</u> <u>e. An assessment of the risk of road traffic accidents for workers travelling to/from their day-to-day accommodation at the end of their shift, and for their start/end-of rotation travel back to their distant home;</u> ~~df.~~ Based on the outcomes of (c, <u>d, and e</u>), measures to be implemented over the life of the project to: - manage the impact of the project workforce on local accommodation <u>and road traffic accidents;</u> and - ensure there is sufficient accommodation to support the workforce requirements <u>and achieve a low significance of effect on accommodation and road traffic accidents;</u> e. The monitoring, reporting and review process for the Plan over the life of the project. For the purpose of this condition, the <u>local areas to be assessed include the township of Waihi, a 30km radius, and 60-minute commute area means the area annexed to these conditions in Attachment 5.</u>	
103	~~The Consent Holder must incorporate the measures and monitoring requirements from Condition 102 (d) and (e) into the Social Impact Management Plan required by Condition 104.~~ <u>The Consent Holder must provide a report to the Hauraki District Council 6 months after certification of the Workforce Accommodation Assessment under Condition 99, and two yearly thereafter, which reports on:</u> <u>a. The development, results, activities, limitations and achievements of the Workforce Accommodation Assessment;</u> <u>b. The effectiveness of the Workforce Accommodation Assessment with respect to the objectives and performance indicators;</u> <u>a.c. Any recommendations to amend the parameter of the Workforce Accommodation Assessment, while maintaining its objectives.</u>	Quigley & Watts Ltd



<i>Social Impact Management Plan</i>		
104	Prior to the first exercise of this consent, the Consent Holder must prepare a Social Impact Management Plan Framework which addresses the effects of the WNP and also takes account of the Social Impact Management Plan certified under the conditions of Land Use Consent LUC 202.2018.00000857.001.	The Consent Holder is required to maintain and implement a Social Impact Management Plan under the conditions of its existing resource consents from Hauraki District Council for mining activities. These conditions are intended to complement those conditions.
105	The Social Impact Management Plan prepared under Condition 104 must be certified under Condition C5 of Schedule One. Certification is required to verify that the Social Impact Management Plan: a. Includes actions, methods and monitoring programmes as appropriate to meet the objective in Condition 106; and b. Satisfies the requirements in Condition 107.	
106	The objective of the Social Impact Management Plan is to provide a framework to identify, assess, monitor, and manage the social effects (positive and negative) of activities authorised by this consent, together with the mining projects undertaken by the Consent Holder in the area on the community.	
107	The Social Impact Management Plan must: a. Be prepared by a suitably qualified social impact specialist; b. Be based on best practice guidelines and procedures for social impact assessment; and c. Include a set of indicators covering the drivers and outcomes of potential social effects attributable to mining activities authorised as part of this consent in combination with the other mining projects undertaken by the Consent Holder in Waihi township, a 30km radius, and 60-minute commute area, including as appropriate: i. Numbers employed in the mine operations, including direct employees and contractors (“workers”), and the level of Māori participation in employment;	Quigley & Watts Ltd



	ii. Location of mine workers <u>prior to employment, and location of mine workers after accepting employment residing locally, regionally and beyond;</u> iii. Workers' housing (rental vs owner occupied, new builds and existing houses); iv. Location and number of OGNZL owned houses in Waihi <u>township</u> and breakdown between employee / contractor renters and public renters of said properties; v. Changes in housing market, <u>emergency accommodation, temporary accommodation, using publicly available data—</u> house and rent prices <u>and affordability (especially lower quartile)</u> and relationship to mine operations, including variations or trends in property sales and enquiries; vi. <u>Local housing and accommodation capacity (current and future)</u> and the ability to address workforce accommodation requirements <u>for all workers and including for Fly-In Fly-Out workforce;</u> vii. The effectiveness of the Waihi Skills Development and Training Action Plan in increasing <u>local</u> workforce participation; viii. The relationship of mine operations to any impacts on local services (i.e. education, health community groups, sports groups); ix. The relationship of mine operations to any impacts on emergency services (i.e. fire, civil defence, ambulance); x. Changes in participation of voluntary and recreational groups; xi. Changes in local business activity arising from mining activity; xii. Take up of the Consent Holder's property purchases and top up policy; xiii. Distribution and use of the Amenity Effect Programme; and xiv. Any complaints and associated information received by the Consent Holder and the response to those complaints. xv. <u>Business-level activities undertaken to support small Waihi businesses to upskill their staff, improve processes and bid for work;</u> xvi. <u>Individual skill development and training activities undertaken to support local employment, but especially from the township of Waihi;</u> xvii. <u>Social support delivered for people gaining employment via the Waihi Skills Development and Training Action Plan, including effectiveness of those people remaining employed.</u>	



	xviii. <u>Detailed information on road traffic accidents involving mine workers</u> d. <u>Describes the quality and frequency of collaboration undertaken with stakeholders and community, especially for Waihi skills development and training, and workforce accommodation</u>	
<i>Reporting</i>		
108	The Consent Holder must engage a social impact assessment specialist to prepare a report that details the monitoring of indicators set out in the Social Impact Management Plan, analysis of those results, and management of effects. The report will also include any recommendation on changes to the agreed indicators. The report must be prepared annually for the first five years and every two years thereafter and be provided to the Hauraki District Council and made publicly available.	
109	The Social Impact Management Plan may be reviewed in accordance with Condition C8 of Schedule One at any time, but must be reviewed at least every five years, or as necessary to address any matter raised in the report required by Condition 108. The Consent Holder must consult with the Hauraki District Council and with key stakeholders identified in the Social Impact Management Plan in undertaking any review.	
<i>Socio-Economic Impact Assessment of Closure</i>		
110	The Consent Holder must provide the Hauraki District Council a Socio-Economic Impact Assessment of Closure (Closure SEIA) at least 5 years prior to the planned closure date for the WNP should, at that date, the WNP represent the end of the Consent Holder's authorised and planned mining activities in Waihi. The purpose of the Closure SEIA is to identify, assess and manage the social effects (positive and negative) of the closure of the Consent Holder's mining projects in Waihi. The Closure SEIA must be prepared by a suitably qualified and experienced person and be based on best practice guidelines and procedures for social impact assessment.	

ECOLOGY AND LANDSCAPE – AREA 1 SPECIFIC

Advice Note: Ecological management in Area 1 is subject to the WUG Ecology and Landscape Management Plan (ELMP-WUG) referred to in Conditions C4 and C47-C48.

The ELMP-WUG includes the following sub-plans:



i. <i>Terrestrial Ecological Management Plan;</i> ii. <i>Vegetation Remediation Plan;</i> iii. <i>Aquatic Fauna Salvage and Relocation Plan; and</i> iv. <i>Kauri Dieback Management Plan.</i>		
Native Fauna Release Area		
111	Prior to undertaking vegetation clearance in Area 1, the Consent Holder must establish a Native Fauna Release Area within the WAPMA in accordance with the requirements of the ELMP-WUG.	Alliance Ecology. Conditions 111 and 112: specify the requirement for a single release area for fauna within the WAPMA. This is inconsistent with Condition 132, which requires fauna to be released at least 100m away from the drill site, and with the Native Frog Monitoring Plan which states there will be six 20m x 20m prepared release sites for Archey's frog. This inconsistency requires addressing, including for the release site(s) to require pest reduction targets to be demonstrably reduced to stated levels prior to relocation of salvaged individuals
112	The purpose of the Native Fauna Release Area required under Condition 111 is to provide suitable and protected habitat which supports the release of native	



	lizards, Archey's frogs and invertebrate species that are required to be relocated from Area 1 under the conditions of this consent. The Native Fauna Release Area shall: - Be a minimum of 5 ha in size with no streams or rivers running through it; - Have $\geq 50\%$ cover of species favoured by frogs in Wharekirauponga, favouring kiekie, fern, gahnia and leaf litter; - Have a surveyed resident frog population density of between 5 and 10 frogs / 100 m²; - Have predator control in place prior to translocation; and - Pest abundance must meet the monitoring targets set out in the ELMP-WUG.	
	<i>Area 1: Drill Sites, Pumping Test Sites, Ventilation Shaft Sites and Portable Drill Rig Locations</i>	Refer to ELMP-WUG for management plan provisions
113	The numbers of new drill sites, pumping test sites, and ventilation shaft sites and portable drill rig locations in Area 1 authorised by this consent inclusive of those identified in Part E.02 of the Application and supporting technical documents submitted by OceanaGold New Zealand Limited to the Environment Protection Authority in support of authorisations for the Waihi North Project under the Act shall not exceed: - A combined total of 20 exploration and investigative drill sites comprising: - Eight exploration drill sites; - Four geotechnical investigative drill sites within the existing Access Arrangement area; - Four geotechnical investigative drill sites above the WUG Dual Tunnel; and - Four hydrogeological investigative drill sites - Up to four ventilation shaft / pumping test sites; and 50 portable drill rig locations.	The ventilation shaft sites may also be used for pump testing Bentley & Co. To address the identified issue of the coordination of the project overlapping several existing consents/authorisations
114	At least 40 working days prior to the establishment of any drill site, pumping test site, ventilation shaft site, portable drill rig site, or water pump site in Area 1, the Consent Holder must prepare a list of suitable sites based on its technical requirements for the drilling.	"Drill site" does not include a portable drill rig location (see definitions)
115	At least 20 working days prior to clearing vegetation or undertaking drilling or construction activities at any of the sites listed pursuant to Condition 113, the Consent Holder must:	



	a. For drill site locations: i. Undertake ecological surveying in accordance with Condition 119 at any of the sites listed pursuant to Condition 114; ii. For those sites which the surveying required by Condition 115(a)(i) determine to be suitable for drill site locations, apply the requirements of the <i>Waihi North Project Site Selection Protocol</i>, annexed as Attachment 6 to this consent; iii. Prepare a Siting Report which provides: • The results of the site assessment undertaken in accordance with the <i>Waihi North Project Site Selection Protocol</i>; • The locations of the selected sites; and • The expected duration of construction and operations at each site; and iv. Submit the Siting Report to Hauraki District Council and Waikato Regional Council for certification that the <i>Waihi North Project Site Selection Protocol</i> has been appropriately applied. <i>Advice Note: The same Siting Report will be submitted to the Department of Conservation for certification under the requirements of the Waihi North Project - Wharekirauponga Access Arrangement and the Waihi North Project - Northern Area Concession.</i> b. For pumping test sites, ventilation shaft sites, portable drill rig sites, or water pump sites in Area 1: i. Select the site location(s) from the list prepared in accordance with Condition 114 by first applying the requirements of the <i>Waihi North Project Site Selection Protocol</i> annexed as Attachment 6 to this consent; and ii. Prepare a Siting Report which provides: • The results of the site assessment undertaken in accordance with the <i>Waihi North Project Site Selection Protocol</i>; • The locations of the selected sites; and • The expected duration of construction and operations at each site; and iii. Submit the Siting Report to Hauraki District Council, Waikato Regional Council, and the Department of Conservation for certification that the <i>Waihi North Project Site Selection Protocol</i> has been appropriately applied. Vegetation clearance, construction or operations at any drill site, portable drill rig site, water pump site, pumping test site, and ventilation shaft site in Area 1 must not commence until the corresponding Site Siting Report is certified pursuant to (a)(iii) and (b)(iii).	



<i>Portable Drill Rig Site and Water Pump Site Locations</i>		
116	At least 20 working days prior to clearing vegetation or undertaking drilling or construction activities at any of the portable drill rig sites or water pump sites the Consent Holder must: - Select the site location(s) from the list prepared in accordance with Condition 114 by first applying the requirements of the <i>Waihi North Project Site Selection Protocol</i>, annexed as Attachment 6 to this Resource Consent; and - Prepare a Siting Report which provides: - The results of the site assessment undertaken in accordance with the <i>Waihi North Project Site Selection Protocol</i>; - The locations of the selected sites; and - The expected duration of construction and operations at each site; and - Submit the Siting Report to the Hauraki District Council for certification that the <i>Waihi North Project Site Selection Protocol</i> has been appropriately applied. <i>Advice Note: The Siting Report will be prepared in conjunction with the Siting Report prepared in accordance with the Waihi North Project – Wharekurauponga Access Arrangement, and the Waihi North Project – Northern Area Concession’.</i>	
117	At least 10 working days prior to drilling at any Portable rig location in Area 1, the Consent Holder must provide Hauraki District Council and the Department of Conservation with notice of the GPS information and/or NZTM co-ordinates of the location.	
<i>Vegetation Clearance and Site Disturbance Associated with Drill Sites</i>		
118	Vegetation clearance at each drill site in Area 1 must: - not exceed: 150 m² per drill site; - limit ground disturbance and vegetation clearance only to that necessary to accommodate the required equipment; and - Be undertaken in accordance with the ELMP-WUG. <i>Advice Note: Vegetation clearance associated with drill sites will comprise the clearance of any / all vegetation in the identified areas.</i>	



119	Prior to undertaking vegetation removal at any proposed drill site in Area 1, the Consent Holder must ensure that that an ecological survey is undertaken by one or more suitably qualified ecologist(s) (including a suitably qualified herpetologist). The survey(s) must be undertaken over 20 m X 20 m plot(s) centred on the approximately 12 m X 12 m site(s) in accordance with Condition 116. The purpose of the ecological survey(s) is to provide a description of the wildlife and vegetation, including all species of flora and fauna ~~detected present~~, and the number, size (height and diameter at breast height) and estimated age of mature canopy and emergent trees.	Alliance Ecology. Amended as there will be individuals present that are not detected in most instances
120	a. Surveys undertaken under Condition 119 will be undertaken at least 3 times at night for frogs (i.e. over 3 separate nights) and at least 3 times at night and 3 days for lizards, during climatic conditions that maximise the chance of native frog emergence (warm – at least 12 degrees C, after rain – i.e. ground and understory vegetation must be wet or moist, and little or no wind) and lizards (at least 12 degrees C and fine weather).	
121	Surveys undertaken under Condition 119 must include the use of automatic bat detectors, which must be in place for a minimum of 2 weeks when weather is forecast to be fine, with relatively warm nights (e.g. when dusk temperature is ≥ 7°C) between October and March (when bats are most active).	
122	If surveys are undertaken during the Archey's frog breeding season (October to February inclusive) when male frogs are not emerging and are thus undetectable and highly vulnerable to disturbance (as are eggs / froglets), and if four or less 'At Risk' or 'Threatened' frogs are found, the site must be fenced (as per the fencing required by Condition 123) and the site resurveyed for an additional night (under environmental conditions outlined in Condition 120) outside of the breeding season (March to September inclusive) as per the methodology and climatic conditions detailed in Condition 120 to confirm the minimum number of native frogs present. If five or more 'At Risk' or 'Threatened' frogs are found, then Condition 124 applies. If survey(s) are undertaken outside of the breeding season (March to September inclusive) as per the methodology and climatic conditions detailed in Condition 120 and if four or less 'At Risk' or 'Threatened' frogs are found, then Conditions 125 - 129 apply. Best practice survey methods will be employed by the suitably qualified ecologist(s).	
123	The Consent Holder will erect an exclusion fence within 5 days after the final frog survey (i.e. after the 3 rd night). Exclusion fences will be regularly inspected and maintained. If an exclusion fence cannot be erected within 5 days of a survey, then the site will be resurveyed for an additional night (under environmental conditions outlined in Condition 120). Once constructed, the integrity of fences will be maintained at all times and a final fence inspection will be completed by	Bentley & Co. correction



	the Consent Holder no earlier than 2 days before works commence. If the integrity of the fence is not continuously maintained, the fence will be repaired, and the site will be resurveyed for frogs for an additional night (as outlined in Condition 120). Sites with fences in place for more than 6 months will also be resurveyed for frogs for an additional night (under environmental conditions outlined in Condition 120) to remove any doubt that frogs have accessed the site during this period. If any resurvey occurs when climatic conditions do not maximise the chance for native frog emergence, the Consent Holder will seek advice from the Hauraki District Council and the Department of Conservation on how to proceed, this may include delaying works until surveys can be completed in suitable conditions. Fenced sites with camps and/or rigs on them are exempt from the 6 month re-survey requirement.	
124	If five or more 'At Risk' or 'Threatened' frogs or lizards are found during any ecological survey(s), or one or more northern striped gecko (<i>Toropuku inexpectatus</i>) are found in a survey undertaken under Condition 119, or during any ecological survey(s), then the Consent Holder shall determine if there is an alternative 20 m X 20 m area within the ecological survey area(s) that is suitable for use as a drill site (i.e. a 20 m X 20 m area where four or less frogs, lizards, or northern striped gecko have been found, and where the boundaries of that 20 m X 20 m area have applied a 6 m buffer from any frog, lizard, or northern striped gecko that have been found within the ecological survey area(s)). If no such alternative 20 m X 20 m area is available, an alternative site selected.	
125	If four or less 'At Risk' or 'Threatened' frogs are found during any ecological survey(s), the Consent Holder will mark and record each location with biodegradable flagging tape and GPS to give an error of no more than ± 20 m.	
126	The Consent Holder will impose a minimum buffer of 3 m around any 'At Risk' or 'Threatened' frog found during the ecological survey(s) and select drill site accordingly.	
127	Within 20 working days of the ecological survey(s) being undertaken, the Consent Holder will provide the Hauraki District Council and Department of Conservation with written report(s) that include: The findings of the full ecological survey(s) required by Condition 113, including the GPS information and / or NZTM coordinates of any Archey's frog (<i>Leiopelma archeyi</i>) and/or Hochstetter's frog (<i>Leiopelma hochstetteri</i>), and / or Northern striped gecko (<i>Toropuku inexpectatus</i>) found; and A description of systematic search methods used, survey timing (date and time of day) and effort (number of person hours/site and site area in ha), the number of	



	frogs and lizards observed and all biometric data collected (SVL, weight, habitat used etc), weather conditions prior to and at time of survey (at a minimum; mm of rain in the previous 24 hours, mm of rain during time of survey, air temperature, moisture on ground and vegetation (wet, damp or dry) and relative humidity) and a discussion of the results and any limitations to the data. The details of the species and individuals found and the NZTM coordinates of the ecological survey site(s) in any situation where 10 or more 'At Risk' or 'Threatened' lizards are found during any ecological survey(s) required by Condition 119 and / or found at any drill site.	
128	All topsoil, felled trees, slash and other leafy materials removed at any drill site must be kept on or adjacent to the site and stockpiled in such a manner that they can be replaced on/ restored at the site on completion of operations. On completion of all operations at each drill site, all equipment and materials shall be removed, the stockpiled topsoil and other leafy materials replaced in their correct order and the site revegetated using the species identified by the ecological survey required by Condition 119.	
129	Vegetation removal must be undertaken in a manner that minimises the impacts on the surrounding vegetation and uses best practice tree felling techniques, including avoidance of felling of trees into waterways.	
<i>Management of 'At Risk' and/or 'Threatened' Herpetofauna during vegetation clearance Associated with Drill Site Locations</i>		
130	A suitably qualified and experienced ecologist must be present onsite during any vegetation clearance to survey habitat refugia and undertake any capture for native lizards and frogs in accordance with the protocols set out in the ELMP-WUG.	
131	If one or more northern striped gecko (<i>Toropuku "Coromandel"</i>) or five or more 'At Risk' or 'Threatened' frogs or lizards are found immediately prior to, or during vegetation clearance then all exploration operations at the drill site(s) will immediately cease and alternative site(s) may be selected.	
132	If four or less 'At Risk' or 'Threatened' frogs or lizards are found on the proposed drill site(s) immediately prior to, or during vegetation clearance then they will be salvaged and moved to suitable habitat as assessed by the onsite herpetologist. The release site(s) will be at least 100 m away from the drill site(s).	Alliance Ecology. This is inconsistent with Conditions 111 and 112 discussed above



133	The Consent Holder must provide the Hauraki District Council and the Department of Conservation with the details (e.g. weight, length, location) of any northern striped gecko (<i>Toropuku "Coromandel"</i>) found and any other 'At Risk' or 'Threatened' frogs or lizards found and relocated and the NZTM coordinates of the release site(s) within 20 working days of the relocation.	
134	The Consent Holder will not reduce the connectivity of the habitat at the location where any 'At Risk' or 'Threatened' frog(s) are found with adjacent undisturbed habitat by more than 25%.	Alliance Ecology. This condition is considered difficult to quantify, and if to be retained requires further direction
135	The Consent Holder will erect sheer polythene fence(s) around any sump(s) or site(s) containing sump(s). The sheer polythene fence(s) will remain erected until the sump(s) have been removed, and the sump site(s) rehabilitated.	
136	The Consent Holder must mark out access routes for access to, and between Drill Sites and thereafter only access sites using the marked routes to access these sites.	
137	The Consent Holder must erect a frog / lizard exclusion fence around the perimeter of any drill site in Area 1 within 5 days following the final survey or native species translocation (whichever is the latter). Exclusion fences must be inspected periodically and maintained so as to ensure their integrity.	
	<i>Vegetation Clearance and Site Disturbance Associated with Pumping Test Sites, Ventilation Shaft Sites</i>	
138	Vegetation clearance at each pumping test site, ventilation shaft site in Area 1 must: a. not exceed: ii. 900 m² per ventilation shaft / pumping test site; b. limit ground disturbance and vegetation clearance only to that necessary to accommodate the required equipment; and c. Be undertaken in accordance with the ELMP-WUG. <i>Advice Note: Vegetation clearance associated with pumping test sites, and ventilation shaft sites will comprise the clearance of any / all vegetation in the identified area.</i>	



139	Prior to undertaking vegetation removal at any proposed vent shaft / pump test site, the Consent Holder will ensure that that an ecological survey is undertaken by one or more suitably qualified ecologist(s) (including a suitably qualified herpetologist). The survey(s) will be undertaken over the area of the proposed site, plus a 10 m wide buffer surrounding the site. <i>Advice Note: The purpose of the survey(s) undertaken is to provide a description of the wildlife and vegetation present, including all species of flora and fauna present and the number, size (height and diameter at breast height) and estimated age of mature canopy and emergent trees.</i>	
140	If one or more northern striped gecko (<i>Toropuku "Coromandel"</i>) is found during vegetation clearance, then all work on the site clearance must immediately cease and an alternative site should be selected.	
141	Vegetation removed at a pumping test / vent shaft site or water pump site must be managed and remediated in accordance with the ELMP-WUG.	
142	Vegetation removal must be undertaken in a manner that minimises the impacts on the surrounding vegetation and uses best practice tree felling techniques, including avoidance of felling of trees into waterways.	
<i>Management of 'At Risk' and/or 'Threatened' Herpetofauna associated with vegetation clearance Associated with Vent Shaft / Pump Test Sites in Area 1.</i>		
143	A suitably qualified and experienced ecologist must be present onsite during any vegetation clearance to survey habitat refugia and undertake any capture for native lizards and frogs in accordance with the protocols set out in the ELMP-WUG.	
144	Any 'At Risk' or 'Threatened' frogs or lizards found during vegetation clearance must be salvaged in accordance with procedures set out in the ELMP-WUG and moved to the Native Fauna Release Area specified in Condition 111 and 112 .	Alliance Ecology. Correction
145	The Consent Holder must adhere to the national Frog Hygiene Protocol annexed as Attachment 7 to this consent, or any future updates thereof.	
146	The Consent Holder must mark out access routes for access to, and between pumping test sites, and ventilation shaft sites, in Area 1 and thereafter only use the marked routes to access these sites.	This is to minimise trampling and disturbance of herpetofauna and their habitat by



		using the same marked access routes for access to, and between sites.
147	The Consent Holder must erect a frog / lizard exclusion fence around the perimeter of any pumping test site, or ventilation shaft site in Area 1 within 5 days following the final survey or native species translocation (whichever is the latter). Exclusion fences must be inspected periodically and maintained so as to ensure their integrity.	
<i>Management of "At Risk" and/or 'Threatened Flora Associated with Drill Sites and, Vent Shaft / Pump Test Sites in Area 1.</i>		
148	Any <i>Pterostylis puberula</i>, <i>Pterostylis tasmanica</i> or king fern <i>Ptisana salicina</i> individuals found when establishing any drill site, pumping test site, and/or ventilation shaft site in Area 1 must be translocated to a suitable alternative site containing similar light, soil and vegetation community characteristics as determined by a suitably qualified and experienced ecologist. The Hauraki District Council and Department of Conservation must be notified of GPS information and/or NZTM coordinates of the transfer location within 20 working days of the transfer having occurred. Disturbance of <i>Pterostylis puberula</i>, <i>Pterostylis tasmanica</i> or king fern <i>Ptisana salicina</i> must be avoided when establishing any portable rig location in Area 1 or Area 3.	Alliance Ecology. It is noted that (subject to size), it would be unlikely that a King-Fern would survive translocation, and there is a question as to whether (relative to size) the site survey site methodology should exclude such sites where a King Fern present.
149	The transfer of any <i>Pterostylis puberula</i> and/or <i>Pterostylis tasmanica</i> must include a minimum 30cm diameter 'clump' of soil around the roots (to protect root structure and to retain any mycorrhizal associations).	
<i>Vegetation Clearance and Site Disturbance Associated with Portable Drill Rig Sites and Water Pump Sites</i>		
150	Vegetation clearance and disturbance at each portable drill rig site and water pump site must not exceed: a. 32 m² per portable drill rig site or water pump site and must limit ground disturbance and vegetation clearance only to that necessary to accommodate the required equipment.	



	<i>Advice Note: Vegetation clearance associated with portable drill rig sites and water pump sites does not require tree clearance but will comprise the clearance of canopy material required to lower equipment into the site via helicopter, and the movement of any on groundcovers, wood debris, and forest duff within the identified area.</i>	
151	There must be no felling of trees at portable drill rig sites and water pump sites.	
152	Prior to undertaking vegetation removal at any portable drill rig site or water pump site, the Consent Holder will ensure that that an ecological survey is undertaken by one or more suitably qualified ecologist(s) (including a suitably qualified herpetologist). The survey(s) will be undertaken over the area of the proposed site, plus a 10 m wide buffer surrounding the site.	
153	The purpose of the survey(s) undertaken under Condition 152 is to provide a description of the wildlife and vegetation present, including all species of flora and fauna present and the number, size (height and diameter at breast height) and estimated age of mature canopy and emergent trees.	
154	Surveys undertaken under Condition 152 will be undertaken once at night for frogs and once at night and once at day for lizards, during climatic conditions that maximise the chance of native frog emergence (warm – at least 12 degrees C, after rain – i.e. ground and understory vegetation must be wet or moist, and little or no wind) and lizards (at least 12 degrees C and fine weather).	
155	If surveys are undertaken during the Archey's frog breeding season (October to February inclusive) when male frogs are not emerging and are thus undetectable and highly vulnerable to disturbance (as are eggs / froglets), and if four or less 'At Risk' or 'Threatened' frogs are found, the site must be fenced (as per the fencing required by Conditions 156) and the site resurveyed for an additional night (under environmental conditions outlined in Condition 154) outside of the breeding season (March to September inclusive) as per the methodology and climatic conditions detailed in Condition 154 to confirm the minimum number of native frogs present. If five or more 'At Risk' or 'Threatened' frogs are found, then Condition 157 applies. If survey(s) are undertaken outside of the breeding season (March to September inclusive) as per the methodology and climatic conditions detailed in Condition 154 and if four or less 'At Risk' or 'Threatened' frogs are found, then Conditions 158 - 161 apply. Best practice survey methods will be employed by the suitably qualified ecologist(s).	
156	The Consent Holder will erect an exclusion fence within 5 days after the frog survey. Exclusion fences will be regularly inspected and maintained. If an	



	exclusion fence cannot be erected within 5 days of a survey, then the site will be resurveyed for an additional night (under environmental conditions outlined in Condition 154). Once constructed, the integrity of fences will be maintained at all times and a final fence inspection will be completed by the Consent Holder no earlier than 2 days before works commence. If the integrity of the fence is not continuously maintained, the fence will be repaired, and the site will be resurveyed for frogs for an additional night (as outlined in Condition 154). Sites with fences in place for more than 6 months will also be resurveyed for frogs for an additional night (under environmental conditions outlined in Condition 154) to remove any doubt that frogs have accessed the site during this period. If any resurvey occurs when climatic conditions do not maximise the chance for native frog emergence, the Consent Holder will seek advice from the Hauraki District Council and the Department of Conservation on how to proceed, this may include delaying works until surveys can be completed in suitable conditions. Fenced sites with camps and/or rigs on them are exempt from the 6 month re-survey requirement.	
157	If five or more 'At Risk' or 'Threatened' frogs or lizards are found during any ecological survey(s), or one or more northern striped gecko (Toropuku "Coromandel") is found during any ecological survey(s), then the Consent Holder shall determine if there is an alternative 18 m X 13 m area within the ecological survey area(s) that is suitable for use as a drill site (i.e. a 18 m X 13 m area where four or less frogs, lizards, or northern striped gecko have been found, and where the boundaries of that 18 m X 13 m area have applied a 3 m buffer from any frog, lizard, or northern striped gecko that has been found within the ecological survey area(s)). If no such alternative 18 m X 13 m area is available, an alternative site should be selected.	
158	If four or less 'At Risk' or 'Threatened' frogs are found during any ecological survey(s), the Consent Holder will mark and record each location with biodegradable flagging tape and GPS to give an error of no more than + 20 m.	
159	The Consent Holder will impose a minimum buffer of 3 m around any 'At Risk' or 'Threatened' frog found during the ecological survey(s) and select drill site(s) accordingly.	
160	Within 20 working days of the ecological survey(s) being undertaken, the Consent Holder will provide the Hauraki District Council with written report(s) that include: The findings of the full ecological survey(s) required by Condition 154, including the GPS information and / or NZTM coordinates of any Archey's	



	frog (<i>Leiopelma archeyi</i>) and/or Hochstetter's frog (<i>Leiopelma hochstetteri</i>), and / or Coromandel striped gecko (<i>Toropuku "Coromandel"</i>) found; and b. A description of systematic search methods used, survey timing (date and time of day) and effort (number of person hours/site and site area in ha), the number of frogs and lizards observed and all biometric data collected (SVL, weight, habitat used etc), weather conditions prior to and at time of survey (at a minimum; mm of rain in the previous 24 hours, mm of rain during time of survey, air temperature, moisture on ground and vegetation (wet, damp or dry) and relative humidity) and a discussion of the results and any limitations to the data. c. The details of the species and individuals found and the NZTM coordinates of the ecological survey site(s) in any situation where 10 or more 'At Risk' or 'Threatened' lizards are found during any ecological survey(s) required by Condition 152 and / or found at any drill site.	
161	Vegetation removed at a portable drill rig site or water pump site must be managed and remediated in accordance with the Ecology and Landscape Management Plan - Wharekirauponga Underground Mine.	
<i>Management of 'At Risk' and/or 'Threatened' Herpetofauna during vegetation clearance Associated with Portable Drill Rig Sites and Water Pump Sites</i>		
162	A suitably qualified and experienced ecologist must be present onsite during any vegetation clearance to survey habitat refugia and undertake any capture for native lizards and frogs in accordance with the protocols set out in the Ecology and Landscape Management Plan - Wharekirauponga Underground Mine.	
163	Except as required by Condition 157, any 'At Risk' or 'Threatened' frogs, or 'At Risk' or 'Threatened' lizards found during vegetation clearance must be salvaged in accordance with procedures set out in the Ecology and Landscape Management Plan - Wharekirauponga Underground Mine and moved to suitable habitat at least 100m from the portable drill rig site or water pump site, as recommended by the onsite ecologist.	
164	The Consent Holder must provide the Hauraki District Council with the details (e.g. weight, length, location) of any 'At Risk' or 'Threatened' frogs or lizards found and relocated and the NZTM coordinates of the release site(s) within 20 working days of the relocation.	



165	The Consent Holder must mark out access routes for access to portable drill rig sites and water pump sites, and thereafter only access sites using the marked routes to access these sites.	
<i>Management of “At Risk” and/or ‘Threatened Flora Associated with Portable Drill Rig Sites and Water Pump Sites</i>		
166	Disturbance of <i>Pterostylis puberula</i> , <i>Pterostylis tasmanica</i> or king fern <i>Ptisana salicina</i> to establish any portable drill rig site or water pump site must be avoided.	

LEIOPELMATID FROG SPECIFIC CONDITIONS

<i>Wharekurauponga Animal Pest Management Area</i>																				
167	The Consent Holder must undertake pest management over an area of at least 632 hectares in the Wharekurauponga Animal Pest Management Area (“WAPMA”) shown in the figure annexed as Attachment 8 to this consent.																			
168	The objective of the pest management required by Condition 167 is to enhance the habitat of leiopelmatid frogs.																			
169	The pest management required by Condition 167 must seek to meet the management targets and adhere to the thresholds for initiating additional control and monitoring frequency for each target species as set out in the following table. <table border="1"> <thead> <tr> <th>Pest Species</th><th>Management Target</th><th>Threshold</th><th>Monitoring frequency</th></tr> </thead> <tbody> <tr> <td>Mice</td><td><5% CCI (year-round)</td><td>≥10% CCI (year-round)</td><td rowspan="4">Before and after toxic control, four monitors per year in February, May, August, and November. Ongoing monitoring using automated technology</td></tr> <tr> <td>Rats</td><td><2.5% CCI (Nov-Feb); <5% (Mar-Oct)</td><td>≥ 5% CCI (Nov-Feb); ≥10% (Mar-Oct)</td></tr> <tr> <td>Possums</td><td><1% CCI and/or RTC (Nov-Feb); <5% (Mar-Oct)</td><td>≥ 5% CCI and/or RTC (Nov-Feb); ≥10% (Mar-Oct)</td></tr> <tr> <td>Mustelids (stoats and ferrets)</td><td>A combination of camera trap indices (<3 detections per 2000 CH) and catch rates</td><td>>3 detections per 2000 CH</td></tr> </tbody> </table>			Pest Species	Management Target	Threshold	Monitoring frequency	Mice	<5% CCI (year-round)	≥10% CCI (year-round)	Before and after toxic control, four monitors per year in February, May, August, and November. Ongoing monitoring using automated technology	Rats	<2.5% CCI (Nov-Feb); <5% (Mar-Oct)	≥ 5% CCI (Nov-Feb); ≥10% (Mar-Oct)	Possums	<1% CCI and/or RTC (Nov-Feb); <5% (Mar-Oct)	≥ 5% CCI and/or RTC (Nov-Feb); ≥10% (Mar-Oct)	Mustelids (stoats and ferrets)	A combination of camera trap indices (<3 detections per 2000 CH) and catch rates	>3 detections per 2000 CH
Pest Species	Management Target	Threshold	Monitoring frequency																	
Mice	<5% CCI (year-round)	≥10% CCI (year-round)	Before and after toxic control, four monitors per year in February, May, August, and November. Ongoing monitoring using automated technology																	
Rats	<2.5% CCI (Nov-Feb); <5% (Mar-Oct)	≥ 5% CCI (Nov-Feb); ≥10% (Mar-Oct)																		
Possums	<1% CCI and/or RTC (Nov-Feb); <5% (Mar-Oct)	≥ 5% CCI and/or RTC (Nov-Feb); ≥10% (Mar-Oct)																		
Mustelids (stoats and ferrets)	A combination of camera trap indices (<3 detections per 2000 CH) and catch rates	>3 detections per 2000 CH																		



	<table border="1"> <tr> <td>Feral cats</td><td>A combination of camera trap indices (<3 detections per 2000 CH) and catch rates</td><td>>3 detections per 2000 CH</td></tr> <tr> <td>Ungulates</td><td>Zero density</td><td>Any observation (incl. sign)</td></tr> </table> Advice note: CCI = Chew Card Index RTC = Residual Trap Catch CH = Camera Hours	Feral cats	A combination of camera trap indices (<3 detections per 2000 CH) and catch rates	>3 detections per 2000 CH	Ungulates	Zero density	Any observation (incl. sign)	
Feral cats	A combination of camera trap indices (<3 detections per 2000 CH) and catch rates	>3 detections per 2000 CH						
Ungulates	Zero density	Any observation (incl. sign)						
Wharekirauponga Pest Animal Management Plan								
170	The Consent Holder must implement the WPAMP referred to in Condition C4 of Schedule One, subject to any amendments that may be made under Condition C8 – C8D of Schedule One.							
171A	Any amendments WPAMP that may be made under Condition C8 – C8D of Schedule One must continue to: a. Include protocols, methods, monitoring programs, targets and thresholds as appropriate to meet the objective in Condition 171B; and b. Satisfy the requirements in Condition 171C.							
171B	The objective of the WPAMP is to outline methods that will be used to control mammalian pests and wasps at a specified site to address residual ecological effects associated with the Waihi North Project.	Alliance Ecology. Wasp control is such a key component of the animal pest control programme						
171C	The WPAMP must continue to include as a minimum: a. Be consistent with the objective of the WPMAP (as set out in Condition 171B); b. Include a description of the current ecological values and the proposed animal pest management; c. Include map(s) showing: i. the animal pest management area(s); and ii. control area(s) reference areas to be used for comparative monitoring purposes of animal pests and frog densities.	Alliance Ecology						



172	The Consent Holder must commence on the ground pest management within the WAPMA in accordance with the WPAMP at least 18 months prior to the Consent Holder beginning stoping at the WUG.	
173	The Consent Holder must continue pest control within the WAPMA in accordance with the WPAMP until the later of: a. Two years after the completion of stoping activities within the WUG; or b. Monitoring undertaken in accordance with Native Frog Monitoring Plan required by Condition 174 shows leiopelmatid frog numbers within the WAPMA are no lower than would be expected in this area had the mining activity not occurred considering frog numbers in nearby habitat which was unaffected by blasting vibration.	
	Native Frog Monitoring Plan	
174	The Consent Holder must provide a Native Frog Monitoring Plan for certification under Condition C5 of Schedule One. Certification is required to verify that the Native Frog Monitoring Plan: a. Includes actions, methods, monitoring programmes and trigger levels as appropriate to meet the objective in Condition 175; and b. Satisfies the requirements in Condition 176.	
175	The objective of the Native Frog Monitoring Plan is to ensure appropriate monitoring ~~of is being undertaken with regard to~~ potential vibration, ~~potential~~ dewatering, ~~and animal~~ pest control ~~effects on and response of~~ native frogs, and to determine whether pest control measures are achieving a net gain in native frogs within the WAPMA, and set out: a. The actions and methods required to ~~adaptively manage minimise and mitigate~~ adverse vibration, dewatering, and pest control effects on native frogs; b. The monitoring programmes and trigger levels required to ensure the best practicable options are being utilised to ~~manage minimise and mitigate~~ adverse effects on native frogs; and c. To ~~confirm to describe how the~~ Hauraki District Council ~~is able to determine~~ that ~~the effects management measures will generate stated net gain outcomes for native frogs the activities are being undertaken in a manner which appropriately minimises and mitigates adverse effects on native frogs, and which enables determination as to whether pest control measures are achieving a net gain in native frogs within the WAPMA.~~	Alliance Ecology
176	The Native Frog Monitoring Plan must include, as a minimum: a. A description of the monitoring programme to be implemented to meet the objective of Condition 175; b. Specific measures designed to monitor:	Alliance Ecology. Also query why Hochstetter's



	i. Surface vibrations from underground blasting undertaken for the project on Archey's frogs; ii. Reductions in stream flow and wetted width as a result of mine dewatering on Hochstetter's frogs; and iii. Pest control on both species of frogs within and outside areas likely to be affected by vibration or dewatering caused by the proposed project. c. <u>A minimum of 2 years of baseline monitoring within the project footprint, WAPMA and selected reference site(s) prior to commencement of construction and mammalian pest management activities.</u>	frog is not included in b. i
	Reporting	
177	Not less than two years prior to the Consent Holder commencing stopping activities at the WUG, the Consent Holder must engage a suitably qualified and experienced ecologist to prepare an annual Leiopelmatid Frog Monitoring Report. The Leiopelmatid Frog Monitoring Report must include: 1. A summary of the results of the monitoring undertaken in accordance with the Native Frog Monitoring Plan; 2. Any important trends arising from the monitoring; 3. Any works that have been undertaken to further support a net gain of native frogs within the WAPMA or that are proposed to be undertaken in the upcoming year to further support a net gain of native frogs within the WAPMA; and 4. A comparison of leiopelmatid frog populations in 3 zones: a) Within the >2 mm/ second vibration zone (314 ha footprint) where frogs are also subject to intensive pest animal control; b) In an adjoining area (the 318 ha offset area) where frogs are not subject to mine-related vibration, but are subject to intensive pest animal control; and c) In an area to the west of the WUG intensive pest animal control area, where frogs are not subject to vibration or additional pest animal control as a result of this project. A copy of the Annual Leiopelmatid Frog Monitoring Report must be provided to Hauraki District Council, the Department of Conservation and the Iwi Advisory Group by 30 June each year, until stopping activities have ceased. The Annual Leiopelmatid Frog Monitoring Report may be combined with the Waihi North Ecological and Landscape Monitoring Report required under Condition 208.	
178	By 30 June each year the Consent Holder must prepare an Annual Pest Management Report, which summarises pest management activities undertaken within the WAPMA in accordance with the WPAMP for the previous year. This reporting must commence after the completion of the first year of pest	



	management activities undertaken pursuant to Condition 170 and continue whilst active pest management is being undertaken by the Consent Holder. The Annual Pest Management Report must include, but need not be limited to: a. A summary of all pest control (plant and animal) activities undertaken within the WAPMA in the preceding 12 months, detailing dates, and methods of each control activity; b. Maps of control devices/area, labelled by type; c. Summaries of trap catch statistics by species (both target and any non-target catch), including by trap type, trap location, lure type as well as chew card index of rats, possums, and camera capture hours for mustelids and feral cats, with comparison to management targets and thresholds for additional control; d. Summaries of results of toxic control operations, including target species, bait type and bait take; e. Any trends in the data, such as high-catch/high bait-take locations, the main species caught and comparisons to previous years; f. Incursions and incursion responses within the pest exclusion fence; and g. Any challenges/issues encountered in undertaking control or monitoring, and how these difficulties were overcome or if they remain ongoing. A copy of the Annual Pest Management Report must be provided to Hauraki District Council, the Department of Conservation and the Iwi Advisory Group. The Annual Pest Management Report may be combined with the Waihi North Ecological and Landscape Monitoring Report required under Condition 208.	
<i>Archey's Frog Research Fund</i>		
179	Within 3 months of the commencement of this consent, the Consent Holder must establish a fund to provide financial support for research, the objective of which is to assess the efficacy of pest control regimes for frog recovery within the area of the WUG and wider WAPMA. <i>Advice Note: The research fund is to be administered by OGNZL or a suitably identified relevant independent body. The allocation of funds will be at the discretion of the administering party.</i>	Archey's Frog is specifically identified as the target for research in the Boffa Miskell Terrestrial Ecology Report At present the research fund conditions contemplate the fund being administered by OGNZL.



		OGNZL is investigating options for the fund being administered by a relevant independent body.
180	The Consent Holder must provide written confirmation to the Hauraki District Council within 10 working days of the fund being established.	
181	The Consent Holder must place in the fund bank account: a. \$25,000 when it is first established under Condition 179; b. \$25,000 annually thereafter for so long as stopping activities are continuing at the WUG. Within 10 working days of each payment being made, the Consent Holder must provide written confirmation to Hauraki District Council that the payment has occurred. The amounts in a. and b. will be adjusted for the start of each calendar year by the annual CPI published by Statistics New Zealand and made publicly available on the Consent Holder's website.	
182	The monies in the fund must be utilised for the purposes set out in accordance with Condition 179, and following consultation with Hauraki District Council, the Department of Conservation and the Iwi Advisory Group	
183	The Consent Holder must provide a report to the Hauraki District Council, annually on the anniversary of the establishment of the fund required in accordance with Condition 179 that <u>demonstrates that the consent holder is meeting pest control requirements in an effective manner, and</u> sets out: a. The activities which have been funded in the previous year and how those activities are intended to contribute to the matters set out in Condition 179; b. Any funding committed for the coming year; and c. The balance of the fund.	Bentley & Co. Inserted to clarify the purpose

MANAGEMENT OF AVIFAUNA ASSOCIATED WITH VEGETATION CLEARANCE IN AREA 1

184	Any reference to birds in these conditions means birds protected under the Wildlife Act 1953.	
185	If vegetation clearance in Area 1 is undertaken in March, trees within the clearance area must be surveyed by a suitably qualified and experienced ecologist for active bird nests within 24 hours of planned	Alliance ecology. Should state that the area to be demarcated includes a



	falling. If active bird nests are detected, the area must be clearly demarcated, and trees must not be felled until the nest is vacated or it has failed.	minimum 20m distance from nest, consistent with the management plans

MANAGEMENT OF BATS ASSOCIATED WITH VEGETATION CLEARANCE IN AREA 1

186	All vegetation clearance in Area 1 must be undertaken in accordance with the methodology specified in: <i>Protocols for minimising the risk of felling bat roosts (Bat Roost Protocols) Version 4: October 2024 approved by the New Zealand Department of Conservation's Bat Recovery Group</i>, or alternative method agreed to in writing by the Hauraki District Council.	

MANAGEMENT OF TERRESTRIAL INVERTEBRATES ASSOCIATED WITH VEGETATION CLEARANCE IN AREA 1

187	Any Paua slug (<i>Schizoglossa novoseelandica</i>) and/or 'At Risk' or 'Threatened' invertebrates listed in the Department of Conservation's Threat Classification Lists (http://www.doc.govt.nz/nztcs) found during any vegetation clearance in Area 1, must be salvaged in accordance with procedures set out in the ELMP and released into the Native Fauna Release Area specified in Condition 111.	

REPORTING

188	Within 20 working days of the completion of vegetation clearance at any drill site, pumping test site or ventilation shaft site in Area 1, the Consent Holder must provide a report prepared by a suitably qualified and experienced ecologist to the Hauraki District Council and Department of Conservation which documents how the requirements to the extent they are relevant of Conditions 130-137, 143-149, 162-166, 184-187 have been addressed. <i>Advice note: For the avoidance of doubt this condition does not apply to portable rig locations</i>	

KAURI DIEBACK MANAGEMENT

189	All activities in Area 1 must be undertaken in accordance with the CFP-KDMP referred to in Condition C4.	



WEED AND PLANT PEST CONTROL

190	The Consent Holder must ensure that all equipment to be used for drilling and construction activities authorised by this consent are clean and free of any exotic weed and seed material prior to entry to Area 1.	
191	The Consent Holder must control any exotic weeds present within any sites in Area 1 which have been cleared as part of the WNP for a period of two years following the completion of WNP activities at that site.	

WASTE DISPOSAL AND TOILETS

192	Self-contained toilets/ “portaloos” in Area 1 must be provided for staff at all times within the defined cleared area of the camp / drill site to ensure the containment of human waste.	
193	All waste and effluent must be removed from Area 1 and disposed of at an appropriate facility.	

ECOLOGY AND LANDSCAPE – AREAS 2, 5, 6, AND 7, AND PLANTING OUTSIDE AREAS 1-7

<i>Advice note:</i> <i>Ecological management in Area 2 is subject to the Willows Site section of the WUG Ecology and Landscape Management Plan referred to in Conditions C4 and C47-C47A.</i> <i>Ecological management in Areas 5, 6 and 7 and planting outside areas 1-7 is subject to the Waihi Area Ecology and Landscape Management Plan (ELMP-WA) referred to in Conditions C4 and C47-C47A.</i> <i>The ELMP-WA includes the following sub-plans:</i> <i>i. Residual Effects Offset Plan;</i> <i>ii. Planting Plan;</i> <i>iii. Lizard Management Plan;</i> <i>iv. Avifauna Management Plan;</i> <i>v. Bat Management Plan; and</i> <i>vi. Aquatic Fauna Salvage and Relocation Plan.²</i>
<i>Lizard Habitat Enhancement Area</i>



194	Prior to undertaking vegetation clearance in any of Areas 5, 6 or 7, the Consent Holder must establish the Lizard Habitat Enhancement Area in accordance with the requirements of the ELMP-WA.	
<i>Planting Areas</i>		
195	Subject to Condition 194, the Consent Holder must undertake the planting identified in Figures A and B in Attachment 9 and Table 1 in Attachment 10 .	Alliance Ecology. The areal extents of each vegetation type to be planted (as required by Condition 195) should be clarified in Table 1, attachment 10 to the conditions to provide greater certainty that the quantum of plantings will be adhered to
196	Should there be a delay in the completion of planting in the timeframe set out in the ELMP due to: a. The unavailability of suitable seedlings; or b. Natural conditions resulting in poor seed production, or poor seed condition, or otherwise adversely affecting seedling propagation for indigenous plant species; The Consent Holder must provide the Hauraki District Council with an amended timeframe within which pioneer and enrichment planting must occur. This timeframe must not exceed four planting seasons. The Consent Holder must complete the planting as soon as reasonably possible within the agreed timeframe and must inform the Hauraki District Council when planting is complete.	
197	All planting required under Condition 195 must: a. Use plants which are eco-sourced from the Coromandel or Bay of Plenty ~~Ecological Plant~~ Regions; and b. Use seed collected locally and germinated and raised at a NZPPI-accredited nursery or from a suitable alternative community-based nursery.	Alliance Ecology
198	All planting required under Condition 195 must be subject to annual maintenance, including releasing of plants from weeds and replacement of dead plants. Any species that consistently fails must be replaced with an alternative similar species listed as suitable for that purpose in the ELMP. Maintenance must commence following pioneer planting and continue for the later of:	



	a. 5 years following the completion of enrichment planting in the Planting Area; or b. Until 90% of the original density and species, with an 80% canopy closure, has been achieved. This condition does not apply to Buffer Planting of the Coromandel Forest Edge shown in Figure A annexed as Attachment 11 to these conditions.	
<i>Terrestrial Biodiversity Offset Areas Specific Requirements</i>		
199	The Waihi Biodiversity Offset Area, Waihi Biodiversity Offset Enhancement Area, and Ventilation Shaft Offset Area must be managed to achieve the biodiversity attribute values (e.g. canopy height, canopy cover and species richness) specified for those areas in accordance with the ELMP. This must include implementing any additional management actions deemed necessary in any 5 yearly Offset Monitoring report submitted in accordance with Condition ~~200~~ ~~1201~~	Bentley & Co. Correction
200	The Consent Holder must commission a suitably qualified and experienced ecologist to undertake ecological monitoring of the Waihi Biodiversity Offset Area, Waihi Biodiversity Offset Enhancement Area, and Ventilation Shaft Offset Area to determine the success of the modelled ecological outcomes and the Biodiversity Attributes specified for each Planting Area in the ELMP. The monitoring must commence five years after the canopy species have been planted in a Planting Area and at 5-yearly intervals for at least 20 years. After 20 years, if all Biodiversity Attributes in a Planting Area are met, monitoring of that Planting Area may cease. If Biodiversity Attributes are yet to be met in a given Planting Area, then monitoring in that Planting Area must continue and adaptive management contingency measures implemented in accordance with the ELMP until such time as the Biodiversity Attributes in a Planting Area are met. The monitoring must include: a. Vegetation monitoring within 20m x 20m plots, including: i. Four plots within enhancement planting (pine dominant SNA 166) and three plots within revegetation planting (one in each of the main planting areas). Final locations must be determined during the first monitoring period once access is confirmed with GPS coordinates and/or permanent markers used to establish boundaries.	Alliance Ecology. For completeness, this condition should state the specific biodiversity attributes that will be measured to verify net gain, along with the expected timeframe within which net gain will be achieved for each attribute so that there is greater certainty around net gain outcomes.



	ii. Identification of all plant species to determine groundcover, understory and canopy species; iii. Recording percentage canopy cover; and iv. Recording canopy height; and b. Bird monitoring at the same locations as the vegetation plots comprising 5 – minute bird counts at each location, replicated four times.	Alliance Ecology consider that this would mean 7 bird monitoring sites, which will provide limited information as the replication is too low
<i>Reporting</i>		
201	The Consent Holder must submit an Offset Monitoring Report to the Hauraki District Council following each 5 yearly monitoring programme required by Condition 200 which includes, as a minimum: a. The results of all aspects monitored including how they are tracking against the Biodiversity Attributes; b. Records of any weeds encountered during monitoring; c. Records of any dead/dying plants encountered; d. Recommendations on any additional planting, enhancement or management actions that should be undertaken to ensure the Biodiversity Attributes for each Planting Area in the provisions included in the ELMP.	
<i>Access and Protection</i>		
202	Except as provided for in Condition 203, within 5 years of the commencement of this consent, the Consent Holder must enter into appropriate covenants and/or encumbrances (or similar legal mechanism) to ensure that, regardless of any future ownership/tenure changes, the areas of land required for revegetation planting specified under Condition 195 .are protected in perpetuity. This condition does not apply to road reserves or land under DOC or other public administration.	
203	In the event that, despite best endeavours:	



	1 The Consent Holder is unable to secure for any given area(s) the legal agreements and/or other authorisations specified in Condition 202: or 2 A planting area identified in Condition 195 proves to be non-viable for any other reason(s): a. The Consent Holder must identify alternative area(s) for planting which have been assessed by a suitably qualified and experienced ecologist (the Ecologist) to be of equal or greater ecological value to the area(s) for which access could not be secured; and b. The Consent Holder must provide a written report to the Hauraki District Council which sets out details of the replacement area(s), including: i. the ownership and legal title of the land; ii. the existing ecological condition; iii. the proposed enhancement works; and iv. a statement from the Ecologist demonstrating that the ecological value of planting in the replacement area(s) is of equal or greater ecological value to planting in the area(s) for which access could not be secured; and Condition 195 applies to the new area(s) as if they were those they are intended to replace.	
204	The Consent Holder must not sell any of the land required for revegetation planting specified under Condition 195 until any covenant and/or encumbrance (or similar legal mechanism) required under Condition 202 is registered against each relevant title.	
<i>Reporting</i>		
205	By 30 June each year following commencement of the first trigger activity specified in the EMLP the Consent Holder must engage a suitably qualified and experienced ecologist to prepare a Waihi North Ecological and Landscape Monitoring Report which covers activities addressed in the ELMP for the previous year's monitoring season. The Waihi North Ecological and Landscape Monitoring Report must include: a. A description of the works and other actions completed by the Consent Holder in the previous twelve months; b. Where aspects of the ELMP have not been implemented in accordance with expected timeframes, the reasons why, and the reasonably practicable measures that have been taken by the Consent Holder to address this;	Alliance Ecology consider that these performance indicators need to be set out in consent conditions



	c. An assessment of the effectiveness of the ELMP in achieving its objectives and performance indicators. Where the report identifies that the performance indicators have not been achieved or maintained the Report must include: i. The reasons why the performance indicators have not yet been achieved; ii. Advice as to specific measures that have already been implemented, or are intended to be implemented to address the this to achieve performance indicators; and d. Whether there should be amendments made to the ELMP or any sub management plan which would better assist the Consent Holder and in meeting the objectives of the ELMP. A copy of the Waihi North Ecological and Landscape Monitoring Report must be provided to Hauraki District Council, the Department of Conservation and the Iwi Advisory Group.	

PUBLIC ACCESS, AWARENESS AND SAFETY IN THE COROMANDEL FOREST PARK

206	Prior to the commencement of activities authorised by this consent at each drill site, pumping test site or ventilation shaft site in Area 1, clear signage and/or markers must be erected around the drill site, pumping test site or ventilation shaft site to prevent members of the public accidentally accessing the drill site, pumping test site or ventilation shaft site while construction activities are occurring.	
207	The Consent Holder must place signs approved by the Department of Conservation at the entrance to the Wharekirauponga Track and at the Kauaeranga Visitor Centre at least two days prior to the commencement of activities authorised by this consent, to alert visitors to the Wharekirauponga Track of the hazards associated with the exploration and mining operations.	
<i>Area 1 – Aircraft Safety</i>		
208	The Consent Holder must ensure that helicopter landing sites in Area 1 are maintained to ensure public safety and post notices at the sites advising the public of the hazards associated with the helicopter landings.	
209	~~The Consent Holder will ensure that aircraft idle times on the ground are kept to a practicable minimum.~~	<u>Styles Group. These matters are to be incorporated into</u>



		<u>recommended Condition 25A</u>
210	~~The Consent Holder will not undertake any helicopter activity to service drill sites within 400 m of the Wharekirauponga Track from 1 December to 28 February (inclusive) when the track is open.~~	Styles Group. These matters are to be incorporated into recommended Condition 25A

ADMINISTRATIVE CHARGES

211	The Consent Holder must pay to the Hauraki District Council all actual and reasonable charges arising from the monitoring of the conditions of this consent and any other administrative charges fixed in accordance with Section 36 of the Act, or any charge prescribed in accordance with regulations made under Section 360 of the Act.	

REVIEW OF CONDITIONS

212	Pursuant to Sections 128(1)(a)(i) and (iii) of the Resource Management Act 1991, the Hauraki District Council may, within one month of the second anniversary of the date of commencement of this consent and every 24 months thereafter, or on receipt of any of the reports required by this consent, review the conditions of this consent for the following purposes: - To review the effectiveness of the conditions of this consent in avoiding, remedying or mitigating any adverse effects 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 deciding to undertake a review and where further or amended conditions are deemed necessary, the Hauraki District Council must have regard to all of the information contained in the reports required under the conditions of this consent – including data obtained from fixed and roving vibration monitors; or - 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 commencement of the consent; or - 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; or	



	d. For the purposes of amending the vibration limits in Condition 27, and/or the Wharekirauponga Pest Animal Management Plan to ensure the activity is having a neutral or net positive effect on Archey's Frog. Any review under this condition must, in addition to the matters set out in the Resource Management Act 1991, also recognise and provide for the purpose of the Fast-Track Approvals Act 2024.	
213	Pursuant to Section 128(1)(a)(i) and (iii) of the Resource Management Act 1991, the Hauraki District Council may review Common Conditions C82 to C85 in Schedule One of this consent following any change made to the Trust Deed referred to in Condition C82 of Schedule One. Any review under this condition must, in addition to the matters set out in the Resource Management Act 1991, also recognise and provide for the purpose of the Fast-Track Approvals Act 2024 as set out in section 3 of that Act. <u>Advice Notes:</u> <i>Such a review should only be commenced after consultation between the Consent Holder and the Hauraki District Council and the Waikato Regional Council, and the Consent Holder must pay the actual and reasonable costs of the review.</i> <i>Notwithstanding Condition 213, where the Hauraki District Council elects to review Conditions C82 to C85 of Schedule One of this consent, such a review should be undertaken after consultation with the Waikato Regional Council.</i>	



HDC feedback

The HDC feedback, reflecting the recommendations of the HDC specialists are shown as: red underline, ~~strikethrough~~, and supplemented with a corresponding red comment in the comment column, and/or the source of the recommended amendment. Where highlighted, this is identifying a concern with the proposed Condition which requires further information/evaluation.

WAIHI NORTH PROJECT - SCHEDULE 1: PROPOSED CONDITIONS COMMON TO THE HAURAKI DISTRICT COUNCIL AND WAIKATO REGIONAL COUNCIL RESOURCE CONSENTS

[Note – the ‘comment’ column has been provided for guidance and interpretation purposes only, and is not proposed to form part of the consent conditions]

CONTENTS

Interpretation	1
General	6
Management and Monitoring Plans	6
Tangata Whenua Conditions	12
Annual Work Programme	16
Company Liaison Officer	16
Complaints Procedure	17
Accidental Discovery Protocol	17
The Biodiversity Project	18
Dewatering and Settlement	22
Ecology and Landscape Management Plans	24
Peer Review Panel	27
Publicly Available Management Plans and Monitoring Reports	30
Rehabilitation and Closure	30
Bond and Trust Fund	35

INTERPRETATION

	Condition	Comment
C1	For the purposes of these consents: a. The Biodiversity Project Area and Areas, 1, 2, 3, 5, 6 and 7 mean the areas identified on Plans BP1, WNP1, WNP2, WNP3,	



	Condition	Comment
	WNP5, WNP6 and WNP7 annexed as Attachment 1 to these conditions. b. Commencement date / commencement of this consent means the date on which the decision is served under section 88 of the Fast-track Approvals Act 2024. c. Exploration drill site means any site which accommodates a drilling platform and is used to discover and evaluate mineral resources. d. Exploration drilling means drilling undertaken to discover and evaluate mineral resources. e. Investigative drill site means any site which accommodates a drilling platform and is used for investigative drilling, excluding the four (maximum) vent shaft / pumping test sites which are to be established in the Coromandel Forest Park (“CFP”). f. Investigative drilling means all drilling undertaken for geotechnical and hydrogeological investigation purposes either from a drill site or portable rig location and includes holes drilled for the installation of groundwater monitoring piezometers. g. Mining activities means the activities listed in Condition 1.b. – 1.h. of the Hauraki District Council land use consent. h. Mine infrastructure means any infrastructure established for the purpose of mining or mining operations. i. Mine Site means Areas 1, 2, 3, 5, 6 and 7, as identified on Plans WNP1, WNP2, WNP3, WNP5, WNP6 and WNP7 annexed as Attachment 1 to these conditions. j. Stopping activities means the extraction of ore via drill and blast methods from level -to-level drill holes greater than 15 m. k. Permanent stormwater management infrastructure means stormwater management infrastructure that is intended to remain in place beyond the duration of mining activities. l. Portable drill rig location means any location at which a portable drilling rig is used for <u>geotechnical and hydrogeological investigation purposes and includes holes drilled for the installation of groundwater monitoring piezometers</u> ~~any purpose~~. m. Water pump site means any location at which a pump is installed to abstract surface water. n. Helicopter landing site means a site where helicopter flights associated with the Waihi North Project will land or take off. These sites include four exploration drill sites, ventilation shaft	Amended for clarity – ‘any purpose’ is too vague



	Condition	Comment																																
	sites, ~~other investigation and monitoring sites authorised by this consent~~ , and designated helipads located at the Waihi Surface Facilities Area, the Willows Surface Facilities Area, and the former Golden Cross Mine.	There aren't any other sites authorised																																
	Acronyms and Abbreviations																																	
C1A	Acronyms and Abbreviations used in this consent have the following meanings: <table><tr><td>AEP</td><td>Annual Exceedance Probability</td></tr><tr><td>ANC</td><td>Acid Neutralising Capacity</td></tr><tr><td>ANE</td><td>Ammonium Nitrate Emulsion</td></tr><tr><td>ANFO</td><td>Ammonium Nitrate Fuel Oil</td></tr><tr><td>AQMP</td><td>Air Quality Management Plan</td></tr><tr><td>BPO</td><td>Best Practicable Option</td></tr><tr><td>CAF</td><td>Cemented Aggregate Fill</td></tr><tr><td>CFP</td><td>Coromandel Forest Park</td></tr><tr><td>CFP-KDMP</td><td>Coromandel Forest Park Kauri Dieback Management Plan</td></tr><tr><td>CPI</td><td>Consumer Price Index</td></tr><tr><td>CRF</td><td>Cemented Rock Fill</td></tr><tr><td>DOC</td><td>Department of Conservation</td></tr><tr><td>DSMMP</td><td>Dewatering and Settlement Monitoring and Management Plan</td></tr><tr><td>EG Vein</td><td>Eastern Graben Vein</td></tr><tr><td>ELMP</td><td>Ecology and Landscape Management Plan (entire plan: ELMP-WA and ELMP-WUG)</td></tr><tr><td>ELMP-WA</td><td>Waihi Area Ecology and Landscape Management Plan</td></tr></table>	AEP	Annual Exceedance Probability	ANC	Acid Neutralising Capacity	ANE	Ammonium Nitrate Emulsion	ANFO	Ammonium Nitrate Fuel Oil	AQMP	Air Quality Management Plan	BPO	Best Practicable Option	CAF	Cemented Aggregate Fill	CFP	Coromandel Forest Park	CFP-KDMP	Coromandel Forest Park Kauri Dieback Management Plan	CPI	Consumer Price Index	CRF	Cemented Rock Fill	DOC	Department of Conservation	DSMMP	Dewatering and Settlement Monitoring and Management Plan	EG Vein	Eastern Graben Vein	ELMP	Ecology and Landscape Management Plan (entire plan: ELMP-WA and ELMP-WUG)	ELMP-WA	Waihi Area Ecology and Landscape Management Plan	
AEP	Annual Exceedance Probability																																	
ANC	Acid Neutralising Capacity																																	
ANE	Ammonium Nitrate Emulsion																																	
ANFO	Ammonium Nitrate Fuel Oil																																	
AQMP	Air Quality Management Plan																																	
BPO	Best Practicable Option																																	
CAF	Cemented Aggregate Fill																																	
CFP	Coromandel Forest Park																																	
CFP-KDMP	Coromandel Forest Park Kauri Dieback Management Plan																																	
CPI	Consumer Price Index																																	
CRF	Cemented Rock Fill																																	
DOC	Department of Conservation																																	
DSMMP	Dewatering and Settlement Monitoring and Management Plan																																	
EG Vein	Eastern Graben Vein																																	
ELMP	Ecology and Landscape Management Plan (entire plan: ELMP-WA and ELMP-WUG)																																	
ELMP-WA	Waihi Area Ecology and Landscape Management Plan																																	



	Condition		Comment
	ELMP-WUG	WUG Ecology and Landscape Management Plan	Dalmour PTY Ltd
	EPA	Environmental Protection Authority	
	GCMP	Gladstone Open Pit Ground Control Management Plan	
	GOP	Gladstone Open Pit	
	GOPTSF	Gladstone Open Pit Tailings Storage Facility	
	GPS	Global Positioning System	
	HAIL	Hazardous Activities and Industries List	
	HDPE	High Density Polyethylene	
	HSW-HS	Health and Safety at Work (Hazardous Substances) regulations	
	IANZ	International Accreditation New Zealand	
	LINZ	Toitū Te Whenua Land Information New Zealand	
	LPG	Liquefied Petroleum Gas	
	LUC	Land Use Consent	
	MPA	Maximum Potential Acidity	
	NAF	Non-Acid Forming	
	NAG	Net Acid Generation	
	NAPP	Net Acid Producing Potential	
	NRS	Northern Rock Stack	
	NTU	Nephelometric Turbidity Unit	
	NZPPI	New Zealand Plant Producers Incorporated	
	NZTM	New Zealand Transverse Mercator	
	OGNZL	OceanaGold (New Zealand) Limited	
	PAF	Potentially Acid-Forming	



	Condition		Comment
	PMP	Probable Maximum Precipitation	
	RL	Reduced Level	
	RMA	Resource Management Act 1991	
	SEIA	Socio-Economic Impact Assessment	
	SFA	Surface Facilities Area	
	SH	State Highway	
	SNA	Significant Natural Area	
	SSESCP	Site Specific Erosion and Sediment Control Plan	
	TARP	Trigger - Action Response Plan	
	TSF3	Tailings Storage Facility (Area 7)	
	TSP	Total Suspended Particulate	
	USEPA	United States Environmental Protection Agency	
	VMP	Vibration Management Plan	
	WAPMA	Wharekirauponga Animal Pest Management Area	
	WNP	Waihi North Project	
	WPAMP	Wharekirauponga Pest Animal Management Plan	
	WRS	Willows Rock Stack	
	WTP	Water Treatment Plant	
	WUG	Wharekirauponga Underground Mine	
	WUG-WMP	Wharekirauponga Underground Mine Water Management Plan	



GENERAL

C2	The activities authorised by this consent must be undertaken in accordance with the information contained in the Assessment of Environmental Effects and supporting technical documents submitted by OceanaGold New Zealand Limited ("the Consent Holder") to the Environmental Protection Authority ("EPA") in support of its application for authorisation of the Waihi North Project under the Fast-track Approvals Act 2024 ("Act").	
C3	In the event of any conflict or discrepancy between the documents noted above and the conditions of this consent, the conditions shall prevail.	
	<u>The consent shall be exercised in accordance with those existing authorisations contained in Part E.02 of the Application and supporting technical documents submitted by OceanaGold New Zealand Limited to the Environment Protection Authority in support of authorisations for the Waihi North Project under the Act. Prior to the exercise of the consent, the consent holder shall confirm which of these authorisations (and related conditions) are to be superseded by this consent, and make application to surrender or vary those consents accordingly. Until such time as that occurs, the conditions of those consents continue to apply</u>	Bentley & Co. Amended consistent with HDC land use consents conditions

MANAGEMENT AND MONITORING PLANS

C4	This consent must be exercised in accordance with the following management plans, which have been certified as part of the approval granted pursuant to Section 81 of the Fast-track Approvals Act 2024 and form part of this consent: - WUG Ecology and Landscape Management Plan ("ELMP-WUG"). - Waihi Area Ecology and Landscape Management Plan ("ELMP-WA"). - Coromandel Forest Park Kauri Dieback Management Plan ("CFP-KDMP"). Vibration Management Plan ("VMP"). - Wharekirauponga Pest Animal Management Plan ("WPAMP"). - Wharekirauponga Underground Mine Water Management Plan ("WUG-WMP"). - Archaeological Management Plan. <i>Advice Note: Any subsequent amendments to the management plans listed in this condition shall be certified by the Councils to ensure the amendments are consistent with the objectives in the approved management plan.</i>	Bentley & Co. Note these management plan conditions may require amendment, subject to whether they are certified in the decision, or are required to be amended and submitted for certification



C4A	Not less than 6 months before starting stopping activities the Consent Holder will consult with the Consent Authority and any relevant Administering Agency regarding whether there have been any material changes in best practice standards that merit amendment to the management plans in accordance with Conditions C8 – C8D.																			
C5	No later than the submission date referred to for the relevant document, the following documents must be submitted to the Consent Authority for certification: To be certified by Hauraki District Council: <table><tr><th>Document</th><th>Submission Date</th></tr><tr><td>a. Construction Noise Management Plan</td><td>30 working days prior to the commencement of construction activities in the relevant Area.</td></tr><tr><td>b. Operational Noise Management Plan</td><td>30 working days prior to the commencement of operational activities in the relevant Area.</td></tr><tr><td>c. Construction Traffic Management Plan</td><td>30 working days prior to the commencement of construction activities in the relevant Area.</td></tr><tr><td>d. Willows Road Upgrade Design</td><td>30 working days prior to the commencement of construction activities in Area 2.</td></tr><tr><td>e. Willows Road Maintenance Programme</td><td>30 working days prior to the commencement of construction activities in Area 2.</td></tr><tr><td>f. Baxter Road Condition Survey Programme</td><td>30 working days prior to the commencement of construction activities in Areas 5, 6 or 7.</td></tr><tr><td>g. Site Management Plan - Contaminated Land</td><td>30 working days prior to the commencement of operational activities in the relevant Area.</td></tr><tr><td>h. Waihi Skills Development and Training Action Plan</td><td>~~48~~ 6 months after the commencement of this consent.</td></tr></table>	Document	Submission Date	a. Construction Noise Management Plan	30 working days prior to the commencement of construction activities in the relevant Area.	b. Operational Noise Management Plan	30 working days prior to the commencement of operational activities in the relevant Area.	c. Construction Traffic Management Plan	30 working days prior to the commencement of construction activities in the relevant Area.	d. Willows Road Upgrade Design	30 working days prior to the commencement of construction activities in Area 2.	e. Willows Road Maintenance Programme	30 working days prior to the commencement of construction activities in Area 2.	f. Baxter Road Condition Survey Programme	30 working days prior to the commencement of construction activities in Areas 5, 6 or 7.	g. Site Management Plan - Contaminated Land	30 working days prior to the commencement of operational activities in the relevant Area.	h. Waihi Skills Development and Training Action Plan	~~48~~ 6 months after the commencement of this consent.	
Document	Submission Date																			
a. Construction Noise Management Plan	30 working days prior to the commencement of construction activities in the relevant Area.																			
b. Operational Noise Management Plan	30 working days prior to the commencement of operational activities in the relevant Area.																			
c. Construction Traffic Management Plan	30 working days prior to the commencement of construction activities in the relevant Area.																			
d. Willows Road Upgrade Design	30 working days prior to the commencement of construction activities in Area 2.																			
e. Willows Road Maintenance Programme	30 working days prior to the commencement of construction activities in Area 2.																			
f. Baxter Road Condition Survey Programme	30 working days prior to the commencement of construction activities in Areas 5, 6 or 7.																			
g. Site Management Plan - Contaminated Land	30 working days prior to the commencement of operational activities in the relevant Area.																			
h. Waihi Skills Development and Training Action Plan	~~48~~ 6 months after the commencement of this consent.																			

	i. Workforce Accommodation Assessment	~~Within At least six months of commencement of the consent prior to commencement of each of the following:~~ ~~a. —Construction activities;~~ ~~b. —Mine development and production; and~~ ~~c. Mine remediation and closure activities~~	Quigley and Watts Ltd
	j. Social Impact Management Plan	Prior to the first exercise of this consent	
	k. Drill sites / Ventilation Sites - Site Selection Report	40 working days prior to the establishment of any drill site, pumping test site or ventilation shaft site in Area 1	
	l. Kenny Street Carpark Subsidence Hazard Zone Management Plan	30 working days prior to enlarging the Kenny Street carpark	
	m. Hazardous Substances Management Plan (Areas 1, 2, ~~and 5, and 6~~ only)	30 working days prior to the commencement of activities in the respective Area	
	n. Native Frog Monitoring Plan	30 working days prior to the commencement of activities in Area 1	
	o. TSF3 Wetland Restoration Plan	30 working days prior to the commencement of wetland establishment works on the surface of TSF3 in Area 7	
	p. <u>Gladstone Open Pit Ground Control Management Plan</u>	<u>30 working days prior to the commencement of GOP mining activities</u>	Dalmour PTY Ltd
	q. <u>Lighting Management Plan</u>	<u>20 working days prior to the commencement of construction activities</u>	Kern Consultants Limited
	r. <u>Helicopter Noise Management Plan</u>	<u>TBC</u>	Styles Group
To be certified By Waikato Regional Council:			



Document	Submission Date
s. Site Specific Erosion and Sediment Control Plans	30 working days prior to commencement of activities in each of Areas 2, 5, 6 and 7
t. Chemical Treatment Plan	30 working days prior to commencement of any erosion and sediment control works here chemical treatment forms part of the proposed erosion and sediment control measures
u. Waihi Area Water Quality Management Plan	30 working days prior to commencement of activities in any of Areas 2,3,5,6 and 7
v. Air Quality Management Plan	30 working days prior to the commencement of activities in any of Areas 1,2,5,6 and 7
w. Willows Rock Stack Monitoring and Management Plan	30 working days prior to the first discharge of rock or overburden on to land at the Willows Rock Stack
x. GOPTSF Monitoring and Management Plan	30 working days prior to the commencement of construction of the GOPTSF
y. Area 5 Rock Storage Monitoring and Management Plan	30 working days prior to the deposition of ore or any potentially acid forming waste rock at any Rock Storage Area
z. Northern Rock Stack Monitoring and Management Plan	30 working days prior to the commencement of works to establish the Northern Rock Stack
aa. TSF3 Monitoring and Management Plan	30 working days prior to the commencement of works to establish TSF3
bb. Area 7 Collection Ponds (S6 and S7) Design	30 working days prior to the commencement of works to establish the Area 7 Collection Ponds (S6 and S7)



	To be certified by Hauraki District Council and Waikato Regional Council: <table><tr><th>Document</th><th>Submission Date</th></tr><tr><td>cc. Dewatering and Settlement Monitoring and Management Plan (DSMMP)</td><td>30 working days prior to the start of mining or tunnelling activity in in the relevant Area.</td></tr><tr><td>dd. Rehabilitation and Closure Plan</td><td>30 working days prior to the first exercise of this consent</td></tr></table> <i>Advice Note: The Native Frog Monitoring Plan required by Condition C5(n) is to also be certified by the Department of Conservation.</i> <i>Prior to submission of the NFMP to the Council, the consent holder shall consult with DOC, and identify and address any feedback received, and how that is responded to in the NFMP</i>	Document	Submission Date	cc. Dewatering and Settlement Monitoring and Management Plan (DSMMP)	30 working days prior to the start of mining or tunnelling activity in in the relevant Area.	dd. Rehabilitation and Closure Plan	30 working days prior to the first exercise of this consent	Bentley & Co. Amendment proposed, as DOC is not the consent authority? This alternate approach is consistent with the ‘invite’ approach referred to in Condition 8A
Document	Submission Date							
cc. Dewatering and Settlement Monitoring and Management Plan (DSMMP)	30 working days prior to the start of mining or tunnelling activity in in the relevant Area.							
dd. Rehabilitation and Closure Plan	30 working days prior to the first exercise of this consent							
C5A	With the exception of the plans specified in Condition C5(d) [Willows Road Upgrade Design] and C5(e) [Willows Road Maintenance Programme], no less than 30 days in advance of the submission date specified in Condition C5, the Consent Holder must give the consent authority notice in writing of the intention to submit the document for certification. <i>Advice Note: To assist the Councils with certification, the Consent Holder should give as much notice as possible of intent to submit a management plan for certification.</i>							
C6	Where an activity authorised by this consent is addressed in a document referred to in Condition C5, the activity must be undertaken in accordance with that document.							
C7	The Consent Holder must ensure that a copy of each Management Plan, including any certified amendments, is available onsite at all times and that each copy is updated within 5 working days of any amendments being certified.							
	Amendments to Plans							
C8	a. The Consent Holder may make amendments to any of the plans referred to in Conditions C4 and C5 at any time. b. Any amendment to any plan must be submitted to and certified by the Consent Authority and any works associated							



	with the amendment must not commence until certification has occurred. c. For amendments made to the management plans listed in Condition C4, the Consent Authority is; i. Terrestrial aspects of an ELMP – Hauraki District Council. ii. Aquatic aspects of an ELMP - Waikato Regional Council. iii. CFP-KDMP – Hauraki District Council. iv. VMP – Hauraki District Council. v. WPAMP – Hauraki District Council. vi. WUGWMP – Waikato Regional Council. vii. DSMMP – Hauraki District Council and Waikato Regional Council.	
C8A	In addition to the requirements of Condition C8, if amendments that relate to works or effects on conservation land are proposed to: a. An ELMP. b. The CFP-KDMP. c. The VMP – insofar as it relates to vibration impacts on frogs. d. The WPAMP. e. The WUGWMP – insofar as it relates to groundwater trigger level responses, groundwater monitoring reporting, the water level monitoring system, the flow monitoring network, alert trigger event notification, respond trigger event notification, and wetland water level trigger event notification. f. The DSMMP. the Consent Holder must invite the Department of Conservation to participate in a collaborative workshop with the Consent Holder to discuss the conservation land related amendments and have input into any associated revisions in accordance with Conditions C8B – C8C.	
C8B	If the Department of Conservation agrees to participate in a workshop: a. The Consent Holder must provide a copy of the amended Management Plan(s) to the Department of Conservation at least 15 days before the workshop; b. The Consent Holder must circulate a record of the workshop discussions to the Department of Conservation within 5 working days of the completion of the workshop; and	



	c. The Department of Conservation may provide written feedback to the Consent Holder on the Management Plan(s) amendments within 15 working days of the completion of the workshop.	
C8C	If the Department of Conservation does not participate in a collaborative workshop, the Consent Holder must provide a copy of the amended Management Plan(s) to the Department and give the Department 15 working days to provide written feedback to the Consent Holder on its content.	
C8D	The Consent Holder must provide any written feedback received from the Department of Conservation on the amended Management Plan(s) to the relevant Consent Authority when the Management Plan(s) is submitted for certification, along with an explanation of where any comment made by DOC has not been incorporated into the Management Plan(s) and the reasons why.	

TANGATA WHENUA CONDITIONS

	<u>Iwi Advisory Group</u>	
C9	Within 3 months of commencement of this consent the Consent Holder must invite the following parties to establish an Iwi Advisory Group to assist the Consent Holder to undertake the functions set out in Condition C.10. • Ngāti Hako • Ngāti Maru • Ngāti Pū • Ngāti Tamaterā • Ngāti Tara Tokanui / Ngāti Koi • Ngaati Whanaunga • Waihi Community Marae • Any other group invited by the iwi listed above.	
C10	The functions of the Iwi Advisory Group are to: - Facilitate engagement and long-term working relationships between the Consent Holder and tangata whenua in respect of the WNP, and the management and monitoring of environmental effects; - Identify and create opportunities for social, economic and environmental enhancement through enhancement of the cultural values and interests as	

	they relate to the project; c. Assist the Consent Holder in developing the Cultural Practices Plan required under Condition C.16; d. Provide input to any preparation of the plans specified in Condition C.11 as relevant; e. Provide input to preparation or preparation of the plans listed in Condition C.12 as relevant; f. Provide other cultural advice to the Consent Holder as may be required; and g. Nominate the cultural representative on the Peer Review Panel.	
C11	The management plans referred to in Condition C.10(d) are: a. WUG Ecology and Landscape Management Plan. b. Waihi Area Ecology and Landscape Management Plan. c. Coromandel Forest Park Kauri Dieback Management Plan. d. Wharekirauponga Animal Pest Management Plan. e. Vibration Management Plan.	
C12	The management plans referred to in Condition C.10(e) are: a. Rehabilitation and Closure Plan. b. Air Quality Management Plan. c. Water Management Plan. d. Willows Rock Stack Monitoring and Management Plan. e. Northern Rock Stack Monitoring and Management Plan. f. GOPTSF Monitoring and Management Plan. g. TSF3 Monitoring and Management Plan. h. Site Specific Erosion and Sediment Control Plans. i. Chemical Treatment Plan.	Bentley & Co. These are not all 'management' plans
C13	The Consent Holder shall invite the Iwi Advisory Group to hold meetings at quarterly intervals, or at any other frequency as may be agreed by the Iwi Advisory Group.	
C14	The Consent Holder's obligations in respect of the Iwi Advisory Group are to: a. Provide a venue for the Iwi Advisory Group meetings at the Consent Holder's cost; b. Meet the reasonable costs of all appointed iwi	



	representatives; c. Resource any other reasonable needs or costs associated with the functioning of the Group; d. Record the main points arising from each meeting of the Group and provide a copy of that record to all tangata whenua members of the Group within 10 working days following each meeting; e. Consider and, if requested by tangata whenua members of the Group, provide a written or other appropriate response to, all recommendations made by the Group; f. To make available any staff members or independent experts engaged by the Consent Holder to meet with the Group, with the costs of the experts' attendances and any necessary preparation to be met by the Consent Holder; g. Subject to any operational or health and safety constraints, provide ongoing opportunities for tangata whenua to walk the Site before works commence and for visits to the Site over the life of the operations; and h. Consider and, if requested, respond to the outcomes of any cultural monitoring undertaken by tangata whenua.	
C14A	Each year up to the completion of rehabilitation, in accordance with the requirements of Condition C66, and within 3 months of the anniversary of the inaugural meeting of the Iwi Advisory Group, the Consent Holder must prepare a report summarising the activities of the Iwi Advisory Group and any other engagement undertaken pursuant to Condition C15 (suitably redacted to address confidentiality obligations between the Consent Holder and the parties it is engaging with) and submit a copy to the Councils for information.	
C15	Irrespective of participation in the Iwi Advisory Group, the Consent Holder must engage with any of the iwi listed in Condition C.9 independently regarding any of the matters listed in Condition C.10 if so requested.	
	<u>Cultural Practices Plan</u>	
C16	Within two (2) months of the Iwi Advisory Group being established, the Consent Holder must invite the Iwi Advisory Group to facilitate the preparation of a Cultural Practices Plan.	
C17	The purpose of the Cultural Practices Plan is to assist tangata whenua to express their tikanga and fulfil their role as kaitiaki in relation to the WNP. It shall include (but not be limited to):	



	a. Protocols for karakia. b. Cultural monitoring protocol(s). c. Accidental discovery protocol(s). d. Protocol(s) for handling of indigenous fauna and flora. e. Protocol(s) for managing light and noise during culturally significant times. Where developed, a copy of the Cultural Practices Plan must be provided to the Councils for their records.	
C18	Where activities authorised by this consent are addressed in the Cultural Practices Plan, they must be undertaken in accordance with the relevant provisions of Cultural Practices Plan in so far as reasonably practicable and not in conflict with other conditions of this consent (which shall prevail).	
	<u>Cultural Awareness Programme</u>	
C19	The Consent Holder must ensure that a Cultural Awareness Programme is provided to the Consent Holder's staff and full-time contractors working in the WNP operations. The Cultural Awareness Programme shall be provided initially prior to the first exercise of this consent, and thereafter as required on a six-monthly basis for the duration of mining activities authorised by this consent. <i>Advice Note: The Cultural Awareness Programme may be prepared in conjunction with the Cultural Awareness Programme prepared in accordance with the consent requirements applying to the Consent Holder's other mines in the Waihi area.</i>	
C20	Subject to their agreement, the Cultural Awareness Programme must be prepared and delivered by representative(s) of the Iwi Advisory Group. The Consent Holder shall be solely responsible for all reasonable costs associated with the preparation and delivery of the Cultural Awareness Programme.	
C21	The Consent Holder must keep a record of when the Cultural Awareness Programme has been delivered to its staff and full-time contractors, and which staff and full-time contractors have attended the Cultural Awareness Programme. Annually, from the first exercise of this consent, the Consent Holder shall provide the record to Councils for their records.	
	<u>Karakia</u>	

C22	Prior to the commencement of works in each of Areas 1,2,3,5,6 and 7, the iwi entities listed in Condition C.9 shall be offered by the Consent Holder the opportunity to conduct karakia.	

ANNUAL WORK PROGRAMME

C23	No later than 30 working days prior to the first exercise of this consent, and annually thereafter no later than the anniversary of works commencing, or at any other date approved by the Hauraki District Council and the Waikato Regional Council (“the Councils”) in writing, the Consent Holder must provide to the Councils an Annual Work Programme for the following year (for information purposes). The Annual Work Programme must include: a. A summary of the mining activities proposed for the following year; b. A description of the proposed sequencing of works; and c. Details of the proposed progressive rehabilitation and revegetation of active Areas. <i><u>Advice Note:</u> The Annual Work Programme may be prepared in conjunction with the Annual Work Programme prepared in accordance with the consent requirements applying to the Consent Holder’s other mines in the Waihi area.</i>	

COMPANY LIAISON OFFICER

C24	At least 20 working days prior to the exercise of this consent, the Consent Holder must appoint a person (the “Company Liaison Officer”) to liaise between the Consent Holder, iwi, the community and the Councils.	
C25	The Consent Holder must investigate and respond to complaints as soon as practicable after receipt. The Consent Holder may replace the Company Liaison Officer from time to time but must maintain a Company Liaison Officer for the duration of the mining activities associated with this consent.	
C26	The name of the current Company Liaison Officer, together with the phone number and email address they can be contacted at, must be available on the Consent Holder’s website prior to the exercise of this consent and up-to-date details must remain on the website for the duration of mining activities authorised by this consent.	

COMPLAINTS PROCEDURE

C27	The Consent Holder must maintain and keep complaints register for any complaints received in relation to activities authorised by these consents. As a minimum, the register must record the following: - The date, time, and details of the complaint; - The incident that resulted in the complaint, if known, including its location; - Any corrective action taken by the Consent Holder in response to the complaint, including timing of that corrective action; and - Communication with the complainant in response to the complaint.	
C28	The complaints register must be made available to the Councils on request or as otherwise specified in specific resource consent conditions for the Waihi North Project.	

ACCIDENTAL DISCOVERY PROTOCOL

C29	In the event that any unidentified archaeological site is located when exercising this consent, the following procedures must be undertaken by the Consent Holder: - All work must cease, and where practicable machinery within 20 m of the discovery shut down; - The Consent Holder must notify the Heritage New Zealand Regional Archaeologist; - If the site appears to be of Māori origin, the Consent Holder must also notify the tangata whenua entities listed in d. of the discovery and ensure site access to enable appropriate cultural procedures and tikanga to be undertaken (as long as all statutory requirements under the Heritage New Zealand Pouhere Taonga Act 2014 and the Protected Objects Act 1975 have been met); - The tangata whenua entities referred to in c. are: - Ngāti Hako - Ngāti Maru - Ngāti Pū - Ngāti Tamaterā - Ngāti Tara Tokanui / Ngāti Koi - Ngaati Whanaunga	

	Any other group invited by the iwi listed above. e. If human remains (koiwi tangata) are discovered, the Consent Holder must also advise the New Zealand Police; and f. Works affecting the discovery must not recommence until Heritage New Zealand provides written approval or an archaeological authority has been obtained. Such authorisations must be provided to the Councils. Except insofar as it relates to koiwi, this condition only applies to those areas not subject to an archaeological authority obtained under the Fast-track Approvals Act 2024 or Heritage New Zealand Pouhere Taonga Act 2014. <i>Advice Note: The Heritage New Zealand Pouhere Taonga Act 2014 provides for the recording, protection, and preservation of archaeological sites whether registered or not. As such, any land use activity likely to damage, modify or destroy any pre-1900 archaeological site (whether recorded or unrecorded) will require an archaeological authority from Heritage New Zealand for the work to lawfully proceed. This applies to all sites, regardless of whether a building or resource consent has been granted or not.</i>	

THE BIODIVERSITY PROJECT

C30	The Consent Holder must establish and implement a Biodiversity Enhancement and Predator Control Programme (the “Biodiversity Project”) no later than 36 months after the Consent Holder commences construction of the Dual Tunnel within Area 1 within the approximately 18,870 hectares of public conservation land (the “Biodiversity Project Area”) shown in the Figure BP1 annexed in Attachment 1 to this consent. <i>Advice Note: The land shown in Figure BP1 specifies the overall project area, or “envelope”, within which Biodiversity Project activities will be undertaken. It is not the intention that particular biodiversity enhancement and predator control activities will be applied uniformly across the entire area.</i> <i>Advice Note: The Consent Holder has offered conditions relating to the Biodiversity Project and agrees to be bound to them pursuant to the Augier principle.</i>	The Biodiversity Project is a beneficial action to be undertaken voluntarily by the Consent Holder in addition to other biodiversity-related actions required by this consent. It is not required to remedy, mitigate, offset or compensate for any adverse effects of the mining activities associated with the Waihi North Project. The Biodiversity Project is in addition to pest management the Consent Holder is required to undertake in the Wharekirauponga Animal Pest Management Area



		under Condition 162 of the Hauraki District Council Land Use Consent.
C31	The objectives of the Biodiversity Project are: a. to provide long term (inter-generational) ecological benefits to the wider CFP area, over and above the management of mining effects; and b. to assist tangata whenua in their exercise of kaitiakitanga.	To allow due exercise of kaitiakitanga, it is intended that the specific objectives and details of the Biodiversity Project will be developed and implemented in partnership with tangata whenua.
	Biodiversity Project Fund	
C32	Prior to commencing construction of the Dual Tunnel within Area 1 the Consent Holder must make available sufficient funds to finance the design of the Biodiversity Project and the activities of the Biodiversity Project Group required by Condition C36.	The Dual Tunnel is expected to take about 3 years to reach the ore resource. During this period the Biodiversity Project Group and the associated Biodiversity Project Plan would be established. OGNZL is required to fund those processes.
C33	Prior to the commencement of stoping within Area 1 the Consent Holder must establish a fund to implement the Biodiversity Project as follows: a. Initial payment of \$2,400,000; and thereafter; b. Payments of \$600,000 annually, paid by 31 March each year. The Consent Holder must continue the funding set out within b. above for a period that is the later of ten years from the date of the initial payment referred to in a. or the completion of stoping. The rates in a. and b. will be adjusted for the start of each calendar year by the annual Consumer Price Index (CPI) published by Statistics New Zealand and made publicly available on the Consent Holder's website.	This represents the minimum amount of money that OGNZL will commit to implementing the Biodiversity Project. Additional money may be sourced for the programme from other sources.
C34	The monies paid into the fund account in accordance with Condition C33 must be allocated to the extent necessary to finance:	



	a. The ongoing operation of the Biodiversity Project Group in accordance with Conditions C36 to C38; b. The implementation of the Biodiversity Project Plan in accordance with Conditions C39 to C40; and c. The ongoing review and updating of the Biodiversity Project Plan.	
	Biodiversity Project Group	
C35	Prior to commencing construction of the Dual Tunnel within Area 1 the Consent Holder must invite the following entities to participate in a Biodiversity Project Group: a. Ngāti Hako b. Ngāti Maru c. Ngāti Pū d. Ngāti Tamaterā e. Ngāti Tara Tokanui / Ngāti Koi f. Ngaati Whanaunga g. Department of Conservation	The composition of the group that will oversee the design, governance, implementation, monitoring and review of the Biodiversity Project is subject to ongoing discussion with tangata whenua and the Department of Conservation.
C36	The purpose of the Biodiversity Project Group is to: a. Oversee the design, governance, implementation, monitoring and review of the Biodiversity Project; b. Ensure that the objectives (Condition C31) of the Biodiversity Project are met; and c. In partnership with the Consent Holder, allocate the funding specified in Condition C33 in accordance with Condition C34.	
C37	Subject to any or all of the groups listed in Condition C35 agreeing to participate, the Biodiversity Project Group must comprise: a. An independent chair; b. Representatives of the Consent Holder; c. At least one suitably qualified and experienced restoration ecologist appointed by the Consent Holder; and d. Representatives of each of the groups listed in Condition C35 who agree to participate.	The restoration ecologist is to be agreed by the Biodiversity Group before being formally appointed by the applicant. Bentley & Co. Correction
C38	Subject to any or all of the groups listed in Condition C35 agreeing to participate, the Biodiversity Project Group must be convened for the first time within 6 months of the Consent Holder commencing construction of the Dual Tunnel within Area 1. Thereafter, the	



	frequency at which the Group meets shall be determined by the Project Group itself in order to fulfil its purpose under Condition C36.	
	The Biodiversity Project Plan	
C39	The Consent Holder must prepare a Biodiversity Project Plan no later than 36 months after the Consent Holder commences construction of the Dual Tunnel within Area 1. A copy of the Biodiversity Project Plan must be provided to the Councils. Provided any or all of the groups listed in Condition C35 agree to participate, the Biodiversity Project Plan must be prepared in partnership with the Biodiversity Project Group. The Biodiversity Project Plan must specify: - The delivery mechanism for the Biodiversity Project (e.g. charitable company or trust, NZ National Parks and Conservation Foundation or other appropriate entity); - The specific management and enhancement objectives for the Biodiversity Project; - The detailed programme of activity for the first 5 years following the commencement of activities authorised by this consent; - Any land access arrangements with the Department of Conservation which are required to implement the Project Plan; - Measurable and time bound performance indicators which demonstrate how the management and enhancement objectives identified in (b) are achieved; - Methods of outcome monitoring for pest and native species to determine programme effectiveness; and - The reporting and review process for the programme. A copy of the Biodiversity Project Plan, and any subsequent updated plans, must be provided to the Councils for their records.	These conditions require OGNZL to develop, implement and review the Biodiversity Project Plan in partnership with the Biodiversity Project Group. As is outlined above these activities are funded by the Biodiversity Project Fund. The requirement to complete the initial Biodiversity Project Plan within 36 months of commencing construction of the Dual Tunnel means it will be ready for implementation before the Consent Holder commences mining of ore.
C40	The Consent Holder must implement the Biodiversity Project Plan and, provided that it has been established, do so in partnership with the Biodiversity Project Group.	
C41	The Biodiversity Project Plan may be reviewed and updated by the Consent Holder at any time, after consultation with the Biodiversity Project Group. The Consent Holder must provide Councils with the most current version of the Biodiversity Project Plan within four weeks of any update being completed for their records.	



	Any such review must adopt the matters addressed in Condition C42c.	
	Reporting	
C42	The Consent Holder must provide an annual report to the Councils for their records, by 30 June each year which summarises: - The activities undertaken by the Biodiversity Project Group; - Progress on the development and/or implementation of the Biodiversity Project Plan (as appropriate). Where aspects of the Biodiversity Project Plan have not been implemented within the timeframes set out in the Biodiversity Project Plan, the Report must include the reasons why, and the measures that have been taken by the Consent Holder in partnership with the Biodiversity Project Group, or are intended to be taken by the Consent Holder in partnership with the Biodiversity Project Group, to address timing issues as quickly as is practicable; - An assessment of the effectiveness of the Biodiversity Project Plan in achieving its objectives and performance indicators. Where the report identifies the that the performance indicators have not been achieved or maintained the Report must include: - The reasons why the performance indicators have not yet been achieved; - Details of any specific measures that have already been implemented, or are intended to be implemented to achieve the performance indicators; and - Any amendments to the Biodiversity Project Plan which would assist the Consent Holder and Biodiversity Project Group to meet the objectives of the Biodiversity Project Plan and a description of how these amendments have been provided for as part of the Biodiversity Project going forward.	These conditions specify the requirements for OGNZL to report on progress in delivering the Biodiversity Project Plan. As is outlined above these activities are funded by the Biodiversity Project Fund.

DEWATERING AND SETTLEMENT

	Dewatering and Settlement Monitoring Plan	
C43	The Consent Holder must submit a Dewatering and Settlement Monitoring Plan for each of Area 1 Area 2, Area 3 and Area 5 for certification under Condition C5.	Dalmour Pty Ltd



	Certification is required to verify that the Dewatering and Settlement Monitoring Plan: a. Includes actions, methods, monitoring programmes and trigger levels as appropriate to meet the objectives in Condition C44; and b. Satisfies the requirements in Condition C45. <i>Advice note: Dewatering and Settlement Monitoring Plans may be submitted for each Area separately or multiple Areas combined. Dewatering and Settlement Monitoring Plans must be certified by Hauraki District Council and Waikato Regional Council.</i>	
C44	The purpose of the Dewatering and Settlement Monitoring Plan is to: a. Ensure that tunnelling and mining activities do not cause surface instability or differential settlement that could damage infrastructure or buildings on land not owned by the Consent Holder; and b. Prevent dewatering from adversely affecting any existing authorised groundwater abstraction. The objectives of the Dewatering and Settlement Monitoring Plan are to: c. Outline the monitoring systems in place for dewatering, groundwater and settlement and the requirements for these systems in accordance with the relevant consent conditions; d. Identify trigger limits that will indicate when contingency mitigation and/or monitoring may be necessary; and e. Identify what contingency mitigation and/or monitoring would be undertaken in the event that the trigger levels are exceeded, in order to ensure that adverse environmental effects are avoided, remedied or mitigated.	
C45	The Dewatering and Settlement Monitoring Plan must include, as a minimum for each Area: a. Detail a programme to monitor and assess the effects of the activities on land settlement and the groundwater hydraulic regime; b. Details of settlement monitoring markers and piezometers to be established for the Area in accordance with the EGL Ground Settlement Report (<i>including those specific markers for Area 1</i>) and submitted with the application documents (reference WAI-985-000-REP-LC-0050, application doc B.13); c. Detail the requirement to monitor ground settlement at a minimum of six monthly intervals, <i>and for Area 1, to be</i>	Dalmour Pty Ltd



	<u>initially monitored at least 6 months before the commencement of mining and at least annually thereafter;</u> and d. A Trigger - Action Response Plan (TARP) for the Area, which sets out trigger levels and management responses to be used if groundwater or surface settlement trigger levels are exceeded.	
	<i>Reporting</i>	
C46	In the event that monitoring undertaken in accordance with the Dewatering and Settlement Monitoring Plan shows that: a. A tilt greater than 1 in 1,000 occurs between any two network monitoring locations and that tilt affects infrastructure or buildings on land not owned by the Consent Holder; or b. There is a significant variance from the predicted settlement rates in that Plan; or c. Dewatering results in adverse impacts on aquifer systems such that existing authorised groundwater supplies used for domestic, stock or other purposes are adversely impacted; Within 20 days of receiving the results of the monitoring, the Consent Holder must provide a written report to the Councils that includes: i. An explanation of the cause of the tilting or adverse effect on groundwater abstraction point(s); ii. Proposed contingency measures to remedy or mitigate the adverse effect, including the timing for implementation of those measures; and iii. The steps the Consent Holder proposes to take in order to prevent any further occurrence of the situation. The Consent Holder must implement any contingency measures identified in the report within the stated time limit.	

ECOLOGY AND LANDSCAPE MANAGEMENT PLANS

	WUG Ecology and Landscape Management Plan (ELMP-WUG) Waihi Area Ecology and Landscape Management Plan (ELMP-WA)	



C47	The Consent Holder must implement the Ecology and Landscape Management Plans (“ELMPs”) referred to in Condition C4, subject to any amendments that may be made under Conditions C8-C8D.	
C47A	The objective of the approved ELMP-WUG is to identify how the potential adverse effects of the Waihi North Project on the ecological, landscape and biodiversity values within the WUG Area and its surrounds will be appropriately managed. To achieve this objective, the ELMP-WUG must include performance indicators in relation to the following: i. Terrestrial Ecological Management Plan – which seeks to provide an approach for managing and monitoring fauna values associated with site clearance as part of mining activities; ii. Vegetation Remediation Plan – which seeks to guide impact management for vegetation clearance above ground within the Coromandel Forrest Park; iii. Aquatic Fauna Salvage and Relocation Plan – which details the processes for native aquatic fauna (fish, kōura and mussel) salvages and relocation methods as required across several watercourses within the Site; and iv. Kauri Dieback Management Plan – which seeks to provide practical guidance on reducing the risk of <i>Phytophthora agathidicida</i> spread as a result of works associated with the Project; and v. Landscape and Visual Mitigation Plan – which seeks to guide management of <u>visible change in the landscape the physical, associative and experiential attributes of the landscape, including visual amenity.</u>	Alliance Ecology. It is considered that performance indicators and stated outcomes should be addressed by consent conditions and not left to management plans. Alliance Ecology. The WAPMP and Frog monitoring plan sit outside this Plan. These documents need to be cross-referenced or integrated into the ELMP-WUG to ensure the objective and scope align. Mansergh Graham
C47B	The objective of the approved ELMP-WA is to identify how the potential adverse effects of the Waihi North Project on the ecological, landscape and biodiversity values within the Waihi Area and its surrounds will be appropriately managed). To achieve this objective, the ELMP-WA must include the performance indicators in relation to the following: i. Residual Effects Offset Plan – which seeks to determine the quantum of conservation actions required to offset the effects on terrestrial ecology values within the three Waihi components of the Waihi North Project, in order to	Alliance Ecology. It is considered that performance indicators and stated outcomes should be addressed by consent conditions and not left to management plans.



	demonstrate an overall Net positive outcome for ecological values; ii. Planting Plan – which seeks to identify the areas where enhancement, offsetting and/or buffer planting is required on site to address residual effects to flora and fauna; iii. Lizard Management Plan – which seeks to outline the ways in which to capture and relocated any indigenous lizards prior to and during vegetation removal activities; iv. Avifauna Management Plan – which seeks to outline the methods that will be used to minimise the effects of the vegetation clearance and land disturbance activities on avifauna; v. Bat Management Plan – which seeks to identify how the Waihi North Project will address potential adverse effects on native bats within the Waihi North Project area, with emphasis on areas where vegetation clearance is proposed; vi. Aquatic Fauna Salvage and Relocation Plan - which details the processed for native aquatic fauna (fish, kōura and mussel) salvages and relocation methods as required across several watercourses within the Site; and vii. Landscape and Visual Mitigation Plan – which seeks to guide management of visible change in the landscape.	Bentley & Co. Correction
C48	Any amended version of an ELMP must as a minimum: a. Remain consistent with the objectives of the ELMP as set out in Conditions C47A and C47B; b. Where the activities are to occur on land that is not owned by the Consent Holder, include details of the access rights necessary to carry out all ecology and landscape management and mitigation measures; c. Include maps or visual tools at a scale which clearly identify the location and extent of any proposed management and mitigation measures, including identification of the specific Areas within which these measures will occur; d. Include details of monitoring and reporting to the Consent Authority prior to, during and post-construction and operation to determine if the ELMP objectives and the performance measures are being met; and e. Include details of the roles and responsibilities of key staff responsible for implementing the ELMP and procedures for	



	training of contractors and other Project staff regarding the ELMP.	
	<i>Reporting</i>	
C49	By 30 June each year the Consent Holder must engage a suitably qualified and experienced ecologist <u>and a suitably qualified landscape architect</u> to prepare an annual Waihi North Ecological and Landscape Monitoring Report that covers activities addressed in the WUG and Waihi Area ELMPs for the previous year. The Waihi North Ecological and Landscape Monitoring Report must include: - A description of the works and other actions completed by the Consent Holder in the previous twelve months; - Where aspects of an ELMP have not been implemented in accordance with expected timeframes, the reasons why, and the measures that have been taken by the Consent Holder to address the shortcoming; - An assessment of the effectiveness of the ELMPs in achieving their objectives and performance indicators. Where the report identifies that the performance indicators have not been achieved or maintained the Report must include: - The reasons why the performance indicators have not yet been achieved; - Specific measures that have already been implemented, or are required to be implemented to address the failure to achieve performance indicators; and - Details of any amendments needed to an ELMP or any other related management plan.	Mansergh Graham Alliance Ecology. Conditions should be included to require ecological monitoring and reporting to Council prior to, during and post-construction and operation to determine if specific ELMP objectives and performance measures are being met

PEER REVIEW PANEL

C50	The Consent Holder must engage, at its cost, a peer review panel ("the Panel"). The members of the Panel must be fully independent of the planning, design, and construction of the Waihi North Project and all its associated facilities.	
C51	The purpose of the Panel is to provide independent advice to the Consent Holder, as to whether or not the conditions of this consent relating to the design, construction, operation, maintenance, rehabilitation and closure of the facilities authorised by this consent are being satisfied and that such work is being undertaken by	



	appropriately qualified personnel in accordance with industry best practice. <i>Advice Note: The Consent Holder recognises that any reports/advice received by the Councils from the Peer Review Panel do not constitute acceptance by Council(s) that the requirements of any conditions of consent have been satisfied unless written confirmation is provided by Council(s).</i>	
C52	The Panel must include technical specialists who between them have demonstrated expertise in the following fields: - Geotechnical engineering, with recognised experience in: - Underground mine construction and mining techniques; - Open pit construction and rock mechanics; - Design and construction of rock storage facilities; and - Design and construction of tailings storage facilities. - Geochemistry, with recognised experience in the management of acid rock drainage; - Hydrogeology; - Rehabilitation, with recognised experience in mine revegetation, rehabilitation, and closure; and - Tikanga Māori. The Consent Holder must invite the Iwi Advisory Group established in accordance with the requirements of Condition C9 to nominate representative(s) to provide the expertise identified in e. There may be any number of individuals on the Panel, provided the necessary areas of expertise are covered.	Alliance Ecology. Relative to the achievement and verification of the intended net gain outcomes, an ecologist should be included as one of the technical experts on the review panel.
C53 A	~~With the exception of the Tikanga Māori specialist identified in C.52(e), members of the Panel identified in Condition C52 must be approved by the Councils prior to appointment to the Panel.~~	Bentley & Co. As the Councils are not reliant on the Peer review Panel to satisfy the requirements of any conditions of consent, it is unclear why this condition is proposed. Alternatively, amend the wording to 'require' input from the Councils.
C53B	~~In the instance that there is agreement between the Councils that a member of the Peer Review Panel is not fulfilling their role in~~	As above.



	~~accordance with Condition C51, the Councils can terminate that members position on the Panel.~~ ~~In the instance that such termination results in the absence of a suitable representative for the fields identified in Condition C52, a new Panel member must be instated in accordance with Condition C50.~~	
C54	The function of each member of the Panel identified in Condition C52, is to act as a Peer Reviewer only in their individual area of expertise.	
C55	The Panel may co-opt other specialist members to assist in any of its functions for specified tasks and periods, ~~subject to the prior approval of the Councils.~~	Bentley & Co. As above, the Councils do not have a role in this process.
C56	The Consent Holder must provide the Panel with all relevant information the Panel requests, including records, plans and designs, and must afford the Panel reasonable access to the site as is necessary and consistent with health and safety procedures.	
C57	The Panel, or individual members of the Panel, may be the same as that which undertakes peer review as required by any other consents held by the Consent Holder authorising mining-related activities at Waihi.	
C58	The Consent Holder must provide the Council ~~(for their information)~~ with copies of all reports prepared by the Panel immediately after they have been provided to the Consent Holder. This condition does not apply to draft reports.	Bentley & Co. Amended for clarity. Other consents require input from this peer review panel. Including: > The WRC consents which authorise the establishment and operation of TSF3; > The WRC consents which authorise the establishment and operation of GOP TSF; > The WRC consents which authorise the establishment and operation of NRS; > The WRC consents which authorise the establishment and



		operation of Willows RS.

PUBLICLY AVAILABLE MANAGEMENT PLANS AND MONITORING REPORTS

C59	All management plans, monitoring reports and other compliance monitoring reporting required by this consent must be posted on the Consent Holder's website as follows: - Management plans referred to in Condition C4 must be posted within 3 months of the date of commencement of this consent; - Management plans referred to in Condition C5 must be posted as soon as they have been certified by the Councils; - Compliance monitoring reports must be posted immediately after they have been accepted by the Councils; and - Only the current versions of the management plans and monitoring reports are required to be displayed on the Consent Holder's website.	

REHABILITATION AND CLOSURE

	<i>Rehabilitation and Closure Plan</i>	
C60	No later than 30 days prior to the first exercise of this consent, the Consent Holder must submit a Rehabilitation and Closure Plan for certification under Condition C5. Certification is required to verify that the Rehabilitation and Closure Plan: - Includes actions, methods, and monitoring programmes as appropriate to meet the objective in Condition C61; ~~and~~ - Satisfies the requirements in Condition C62; ~~and~~ ~~Is consistent with the identified outcomes and performance standards contained in the ELMPs~~	Mansergh Graham
C61	The objective of the Rehabilitation and Closure Plan is to ensure rehabilitation and closure of the Mine Site is undertaken in a manner which achieves the outcomes required by Conditions C64 to C69 such that in the long term:	



	a. The Mine Site, and any structures on it ~~(that are retained)~~, will remain stable, self- sustaining, and in a rehabilitated state; ~~and~~ b. Any water discharging from the Mine Site, in combination with any other discharges from the Consent Holder's operations, will be of a quality such that it will not adversely affect aquatic life, or other users of the water resource-; c. <u>The mine site landscape shall be shaped and planted in accordance with the Proposed Closure Concept Plans contained in Attachment 2 of the conditions (namely Attachment Fig. A Proposed Closure - WUG Surface Facilities Area and Fig. B Proposed Closure - GOP, NRS and TSF3 or their subsequent certified amendments); and</u> d. <u>The Proposed Closure Concept Plans shall include the integration of works undertaken through the ELMPs and meet the requirements of the relevant performance standards contained in the ELMPs (except for temporary mitigation works).</u>	Bentley & Co. Edit for clarification Mansergh Graham
C62	The Rehabilitation and Closure Plan must be in two parts: a. Part A: must describe the programme of rehabilitation (including re-vegetation and backfilling) that is proposed for the Area(s) for the following twelve months, should closure not be proposed during that period and report on any such works undertaken during the previous year; b. Part B must: i. Describe the programme of rehabilitation and closure should closure be programmed to occur within the following 12 months; ii. Include an assessment of any residual risk that the Area(s) may pose to the environment and the neighbouring community should closure occur within the following 12 months; iii. Include a programme for monitoring of the Area(s) following closure, and list all maintenance works anticipated to be required at the closed Area(s) for the foreseeable future; and Include a programme for monitoring of water discharges from the Mine Site and associated trigger levels to ensure best practicable options are being utilised to avoid adverse effects on aquatic life or other users of the water resources. <u>Include an explanation and a process which demonstrates how the Rehabilitation and Closure Plan will integrate with Rehabilitation and Closure Plan(s) authorised to date, inclusive of those which overlap</u>	Bentley & Co. Inserted to require integration/alignment



	<u>physically, spatially and operationally with the Areas common to this application.</u>	
C63	The Rehabilitation and Closure Plan must be reviewed and updated annually. ~~The updated Rehabilitation and Closure Plan must be submitted to the Peer Review Panel.~~	Bentley & Co. This is superfluous, as Condition C51 includes this item
C64	The Consent Holder must rehabilitate all areas within Area 1 that have been subject to mining activities authorised by this consent by: - Removing all fencing and ventilation easé, drill site infrastructure, campsites, helipads and other mining infrastructure; - Returning stockpiled materials collected from drill platforms sites prior to the commencement of surface drilling activities to their original sites, in accordance with the WUG Vegetation Remediation provisions included in the Ecology and Landscape Management Plan; - Capping all ventilation shafts with a structural cap or stabilised backfill; - Grouting drillholes and removing any contaminated soil; - Undertaking weed control / surveillance for a period of two years at cleared sites in accordance with the WUG Vegetation Remediation provisions included in the WUG Ecology and Landscape Management Plan; - Backfilling any underground void where geotechnical conditions require this to ensure long term stability; and - Ensuring that once all mining and dewatering have been completed the necessary works are undertaken to ensure there are no adverse effects on: - The natural flows of any surface water body identified as Natural State Water Body (in the Waikato Regional Plan) being those referenced as being potentially affected by stoping activities in the Wharekirauponga Hydrology Modelling report prepared by GHD Limited, except that associated with the re-emergence of the warm spring located at NZTM E1850258, N5868719; and - The natural water levels of any natural inland wetland identified as being potentially affected by stoping activities in the Assessment of Groundwater Effects - Wharekirauponga Deposit report prepared by Williamson Water & Land Advisory.	
C65	The Consent Holder must rehabilitate all areas within Area 2 that have been subject to mining activities authorised as part of this consent by:	



	a. Removing mining infrastructure from Area 2 ~~when no longer required~~, unless <u>such</u> infrastructure can be utilised for other lawful purposes or is otherwise consented; b. Removing the potentially acid forming material from the Willows Rock Stack; c. Undertaking validation sampling of the Willows Rock Stack footprint in accordance with the Waste Classification Management Plan certified under Condition C5(t) to assess whether in-situ material is potentially acid forming; d. Applying sufficient lime to any area where potentially acid forming material is identified during validation sampling undertaken in accordance with (b) to achieve a Net Potential Ratio of 1.2 for the upper 0.6 metres of in-situ material prior to rehabilitation of the area; e. Revegetating the Willows Rock Stack footprint, including resspreading of stockpiled topsoil; f. Reinstating and rehabilitating the waterway impacted by the Willows Rock Stack, to include riparian planting in accordance with (hg), and the installation of stock exclusion fencing around the waterway; g. Restoration and riparian planting in general accordance with Figure A – Proposed Closure – WUG Surface Facilities Area annexed in Attachment 2 to these conditions; h. Backfilling all tunnel entrances from the portal for a distance of 100 metres; i. Re contouring boxcuts as required to ensure long term stability; and j. Returning Area 2 to a condition suitable for pastoral farming, with the exception of areas within Area 2 where restoration and enhancement planting has been established in accordance with this consent.	Bentley & Co. Amended for consistency and clarity Correction
C66	The Consent Holder must rehabilitate all areas within Area 3 that have been subject to mining activities authorised by this consent by: a. Backfilling all tunnel entrances from ~~the each~~ portal for a distance of 100 metres; and b. Re contouring any boxcuts as required to ensure long term stability.	Bentley & Co. For clarity
C67	The Consent Holder must rehabilitate all areas within Area 5 that have been subject to mining activities authorised as part of this consent by: a. Capping the tailings in Gladstone Open Pit Tailings Storage Facility with a non-acid forming layer of rockfill, suitable	



	rooting medium, topsoil layer, and contouring and drainage as required, to ensure the establishment and maintenance of a surface which will protect water quality and avoid soil erosion. b. Capping any exposed PAF material above the outlets described in c. c. Grading the final capped surface of the Gladstone Open Pit Tailings Storage Facility towards two outlets, one on the southern side near the Gladstone Wetland and one on the western side where the pit crest is lowest; d. Backfilling all tunnel entrances from the Gladstone Portal, the MUG Portal, and the WUG Portal for a distance of 100 metres; e. Re contouring any boxcuts as required to ensure long term stability. f. Unless <u>mining</u> infrastructure can be utilised for other lawful purposes <u>or is otherwise consented</u>, removal of buildings and structures ~~that protrude above ground level~~, in accordance with the Rehabilitation and Closure Plan required by Condition C60; g. Restoring and recontouring disturbed landforms to blend in with the surrounding landforms; and h. Restoration, riparian and wetland edge planting, and provision of recreational trails, in general accordance with Figure B – Proposed Closure – GOP, NRS and TSF3 annexed as Attachment 2 to these conditions.	Bentley & Co. Amend for consistency
C68	The Consent Holder must rehabilitate all areas within Area 6 that have been subject to mining activities authorised as part of this consent by: a. Removing mining infrastructure from Area 6 when no longer required, unless infrastructure can be utilised for other lawful purposes <u>or is otherwise consented</u>; b. Recontouring, capping and hydroseeding the remaining rock in the Northern Rock Stack to reflect the surrounding rounded landforms; c. Capping any exposed PAF material, including provision of a low permeability non-acid forming layer to limit water and oxygen ingress, suitable rooting medium, topsoil layer, and contouring and drainage as required, to ensure the establishment and maintenance of a surface which will protect water quality and avoid soil erosion; and d. Restoration, riparian and wetland edge planting, and provision of recreational trails, in general accordance with Figure B –	Bentley & Co. Amend for consistency



	Proposed Closure – GOP, NRS and TSF3 annexed as Attachment 2 to these conditions.	
C69	The Consent Holder must rehabilitate all areas within Area 7 that have been subject to mining activities authorised as part of this consent by: - Progressive rehabilitation of the Tailings Storage Facility 3 embankment surface, where doing so is compatible with mining operations, and where areas of a practical working size become available, including the provision of a low permeability non-acid forming layer to limit water and oxygen ingress, suitable rooting medium, contouring and drainage as required, to ensure the establishment and maintenance of a surface which will protect water quality and avoid soil erosion; - Capping the perimeter of Tailings Storage Facility 3 with a non-acid forming layer of rockfill, suitable rooting medium, topsoil layer, and contouring and drainage as required, to ensure the establishment and maintenance of a surface which will protect water quality and avoid soil erosion; - Unless otherwise agreed in writing by the Councils, pastoral grass shall be established on each lift either, progressively as works are undertaken, or at the end of the earthworks season. <i>Advise Note: The purpose of the establishment of grass on the TSF3 embankment as soon as possible is to reduce the visual effects of the earthworks and stabilise the soils.;</i> - Conversion of the surface of Tailings Storage Facility 3 to a wetland with a spillway into the Ruahorehore Stream in accordance with the TSF3 Wetland and Restoration Plan; - Conversion of Collection Ponds (S6) and (S7) to wetlands; and - Restoration, riparian and wetland edge planting, and provision of recreational trails, in general accordance with Figure B – Proposed Closure – GOP, NRS and TSF3 annexed as Attachment 2 to these conditions.	

BOND AND TRUST FUND

	<u>Advice note:</u> - The bond requirements set out in the conditions below are joint between the Hauraki District Council and the Waikato Regional Council (“the Councils”). - Advice note: The bond referred to in this condition does not apply to surface activities in Area 1 as a bond for those activities	



	is provided for in the Wharekairauponga Access Arrangement (Ref #) [add WKP AA Reference number]	
	<i>Rehabilitation Bond</i>	
C70	Prior to the first exercise of this consent, the Consent Holder must provide and maintain in favour of the Councils a rehabilitation bond to: - Secure compliance with all the conditions of this consent except in so far as they relate to surface activities in Area 1 and to enable any adverse effects on the environment resulting from the Consent Holder's activities and not authorised by a resource consent to be avoided, remedied or mitigated; - Other than for surface activities in Area 1, secure the completion of rehabilitation and closure in accordance with the certified Rehabilitation and Closure Plan; - Ensure the performance of any monitoring obligations of the Consent Holder under this consent, except in so far as they relate to ecological monitoring in Area 1; - Enable the Councils to undertake monitoring and management of the Mine Site excluding Area 1 until completion of closure of the site; and Enable the Councils, in the event of the bond being called upon, to purchase Industrial and Special Risk Insurance in the sum of \$17 million (2025 dollars) and public liability insurance to the sum of \$7 million (2025 dollars). <i>Advice Note: The rehabilitation bond sum required under these conditions may be added to any rehabilitation bond sums required under other rehabilitation bond conditions for the Consent Holder's other mines in Waihi such that a single rehabilitation bond instrument in favour of the Councils may be in place at any one time, covering all of the Consent Holder's rehabilitation bond obligations to the Councils in connection with the Consent Holder's mining activities at Waihi.</i>	These are the existing rehabilitation bond conditions imposed on Project Martha with updates such that they cover all Waihi North Project activities. Bentley & Co. It is unclear what has determined these base figures. There is no assessment/report provided in the application to determine the suitability of these values, or what they are derived from – with ref to the matters referred to in Condition C75 and C76
C71	The rehabilitation bond must be in a form approved by the Councils and must, subject to Conditions C70-C81, be on the terms and conditions required by the Councils.	
C72	The rehabilitation bond must provide that the Consent Holder remains liable under the Resource Management Act 1991 for any breach of the conditions of consent which occurs prior to the completion of closure.	



C73	Section 109(1) of the Resource Management Act 1991 shall apply to the rehabilitation bond and the rehabilitation bond must be registered under the Land Transfer Act 2017 by the Consent Holder at its expense against the certificates of title of the properties annexed as Attachment 3 to these conditions owned by the Consent Holder or its subsidiaries, and as identified as 'Post Closure Proposed Trust Land' on the plans in Attachment 4 .	
C74	Unless the rehabilitation bond is a cash bond, the performance of all of the conditions of the bond must be guaranteed by a guarantor acceptable to the Councils. The guarantor must bind itself to pay for the carrying out and completion of any condition in the event of any default of the Consent Holder, or any occurrence of any adverse environmental effect requiring remedy.	
C75	The amount of the rehabilitation bond shall be fixed annually by the Councils who must take into account any calculations and other matters submitted in the Rehabilitation and Closure Plan, or otherwise, by the Consent Holder which are relevant to the determination of the amount. The amount of the rehabilitation bond shall be advised in writing to the Consent Holder at least one month prior to the review date.	
C76	The amount of the rehabilitation bond to achieve the purposes set out in Condition C70 include: a. The estimated costs (including any contingencies necessary) of rehabilitation and closure in accordance with the conditions of this consent, on completion of the mining activities proposed for the next year and described in the Rehabilitation and Closure Plan; b. Any further sum which the Councils consider necessary to allow for remedying any adverse effect on the environment that may arise from the exercise of this consent; c. The estimated costs of monitoring, in accordance with the monitoring conditions of this consent until completion of closure of the site; and d. Any further sum which the Councils consider necessary for monitoring any adverse effect on the environment that may arise from the exercise of this consent including monitoring anything which is done to avoid, remedy, or mitigate an adverse effect.	
C77	Should the Consent Holder not agree with the amount of the rehabilitation bond fixed by the Councils 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 each of the Councils advising that	



	the amount of the rehabilitation bond is disputed, and such notice is to be given by the Consent Holder within two weeks of receipt 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 President of the Institute 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 Councils 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 and subject to Condition C79, the existing bond shall continue in force. That sum shall be adjusted in accordance with the arbitration determination.	
C78	If, for any reason other than default of the Councils, 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 Councils, until such time as the arbitrator does make their decision. At that stage the new amount shall apply. The Consent Holder must not exercise this consent if the variation of the existing bond or new bond is not provided in accordance with this condition.	
C79	The rehabilitation bond may be varied, cancelled, or renewed at any time by agreement between the Consent Holder and the Councils provided that cancellation will not be agreed to unless a further or new rehabilitation bond acceptable to the Councils is available to replace immediately that which is to be cancelled (subject however to the condition below as to release of the rehabilitation bond on the completion of closure of the site to the Councils' satisfaction).	
C80	The Councils shall release the rehabilitation bond on the completion of closure of the site. "Completion of closure of the site" means when the rehabilitation objective as defined in Condition C61 has been demonstrated by the Consent Holder, to the satisfaction of the Councils, to have been met.	
C81	All costs relating to the rehabilitation bond must be paid by the Consent Holder.	
	Trust	
C82	The Trust established for the Martha Mine Extended Project under expired Land Use Consent LUC 97/98-105 (the Martha Trust) will also be responsible for the post closure management of the Gladstone Open Pit/ Tailings Storage Facility, Northern Rock Stack, Borrow Areas, and Tailings Storage Facility 3 including the activities	Bentley & Co. The items deleted are not the subject of this application. Items/edits added for consistency and completeness.



	authorised under this consent. The Trust's purposes and powers shall be: - To take legal title after completion of the closure of the <u>Mine</u> site to the land marked as 'Post Closure Proposed Trust Land' on the plans in Attachment 4 to these conditions and the records of title listed in Attachment 3. The Trust shall have no power of sale of the land; - To monitor and maintain these facilities in perpetuity and to be responsible for such monitoring and maintenance as to ensure that the Gladstone Open Pit/ Tailings Storage Facility, Northern Rock Stack, Tailings Storage Facility 3, ~~Tailings Storage Facility 2 and Tailings Storage Facility 1A and the park (and proposed pit lake if acceptable to LINZ)~~ remain in a stable, self-sustaining, rehabilitated state; - To obtain any resource consents that may be required after completion of the closure of the <u>Mine</u> site and the expiration or surrender of this consent; - Without limiting the above, to take out reasonable insurance cover against relevant and insurable risks; - To reimburse the Councils for any costs incurred by them in monitoring or maintaining the Gladstone Open Pit /Tailings Storage Facility, Northern Rock Stack, Tailings Storage Facility 3, ~~Tailings Storage Facility 2, Tailings Storage Facility 1A, the park and proposed pit lake;~~ and - To invest any funds held to generate the necessary income to pay for the above purposes. These purposes and powers shall be recorded in a Trust Deed approved by the Councils. The Trust Deed must provide: - That the Councils shall have the power to appoint two trustees each to the Trust; - That the Councils shall jointly have the power, after consultation with Ngati Tamaterā, to appoint one additional trustee representing Ngati Tamaterā; and - That Te Runanga a Iwi o Ngati Tamaterā Incorporated shall have the power to appoint one advisory trustee to represent Ngati Tamaterā. <i>Advice note: The Council appointees specified in (g) <u>and (h)</u> may be representatives of the Iwi Advisory Group, subject to the agreement of that group.</i>	Bentley & Co. In this condition, the Mine Site needs to be defined relative to what is being closed to trigger this It is proposed that the footprint of Gladstone Open Pit Tailings Storage Facility, Northern Rock Stack and Tailings Storage Facility 3 be added to the Trust Land. These conditions are as per those imposed on Project Martha, but with appropriate amendments to incorporate this additional land. There may need to be an amendment to the trust deed to ensure the Martha Trust is authorised to take title to land pursuant to consents granted under the FTAA in addition to the RMA. This is a matter to be addressed by OGNZL and the Councils Bentley & Co. It is for the Trust to agree to these terms as being party that is responsible for fulfilling the consent conditions. HDC query whether it is necessary for a consent condition to be included to transfer the consent to the Trust. Bentley & Co. It is not for HDC to determine the involvement of third parties, or which iwi is to be involved, and HDC are not involved/empowered in respect of the IAG, and Condition C10 does not



		give this agreement function to the IAG.
C83	The Consent Holder will be responsible for all costs associated with the maintenance of the Trust. The solicitor appointed to act for the Trust must be independent of the solicitors acting for the Consent Holder and must be approved by the Councils.	
C84	The Consent Holder must execute irrevocable transfer documents to enable the Trust to complete the transfer of the land detailed in Attachment 4 to these conditions, and these transfer documents are to be held in escrow subject to Condition C85 by the solicitor acting for the Trust.	
C85	The Trust Deed must provide that upon the completion of closure of the <u>Mine</u> site in accordance with the Rehabilitation and Closure Plan required under Condition C60, the transfers of land will be completed by the trustees registering the transfers on the relevant records of title, and the trustees shall undertake their responsibilities with respect to the Gladstone Open Pit Tailings Storage Facility, Northern Rock Stack, Tailings Storage Facility 3, ~~Storage 2, Storage 1A, the park and proposed pit lake~~ . The Water Treatment Plant must be in good working condition at the time the transfer of it to the Trust is completed.	Bentley & Co. In this condition, the Mine Site needs to be defined relative to what is being closed to trigger this. Bentley & Co. The items deleted are not the subject of this application. Items added for consistency and completeness.
	<i>Capitalisation Bond</i>	
C86	Prior to the exercise of this consent, the Consent Holder must provide and maintain in favour of the Councils a capitalisation bond to secure the settlement on the Trust of the required capital sum to fund the Trust to carry out its obligations. <i>Advice Note: The capitalisation bond sum required under these conditions may be added to any capitalisation bond sums required under other capitalisation bond conditions for the Consent Holder's other mines in Waihi such that a single capitalisation bond instrument in favour of the Councils may be in place at any one time, covering all of the Consent Holder's capitalisation bond obligations to the Councils in connection with the Consent Holder's mining activities at Waihi.</i>	
C87	The capitalisation bond must be in a form approved by the Councils and, subject to these conditions, must be on the terms and conditions required by the Councils.	
C88	Unless the capitalisation bond is a cash bond, the performance of all of the conditions of the capitalisation bond must be guaranteed by a guarantor acceptable to the Councils.	



C89	The amount of the capitalisation bond shall be fixed annually by the Councils and cover: - The estimated costs of dealing with any adverse effect on the environment which may become apparent after the surrender or expiry of this consent. This sum may include (without limitation) provision to deal with structural instability or failure, land and/or water contamination, and failure of rehabilitation. Such estimated costs shall include the costs of investigation, prevention, and remediation of any adverse effect; - The estimated costs of monitoring for and of any adverse effect and of measures taken to avoid, remedy, or mitigate any adverse effect; - Provision for contingencies; - The estimated costs of long-term monitoring and maintenance of the area to be owned or managed by the Trust, following completion of closure of the site; and - Provision for the reasonable remuneration of the trustees having regard to their duties and responsibilities as trustees; and be based on a residual risk assessment prepared by the Consent Holder and provided to the Councils. The residual risk assessment must be updated annually. The amount of the reviewed bond shall be advised in writing to the Consent Holder at least one month prior to the annual review date. The amount of the bond shall be reduced by the capital amounts settled on the Trust from time to time by the Consent Holder.	Bentley & Co. HDC is concerned that there is no explanation of the terms/parameters that such an assessment is to contain, or what acceptance, approval, or certification process this is to follow.
C90	Should the Consent Holder not agree with the amount of the capitalisation bond fixed by the Councils then the matter shall be referred to arbitration in accordance with the procedures set out in Conditions C77 and C78 above. Subject to Condition C77, that sum shall be adjusted in accordance with the arbitration determination. The Consent Holder must not exercise this consent if the variation of the existing capitalisation bond or new capitalisation bond is not provided in accordance with this condition.	
C91	The capitalisation bond may be varied, cancelled, or renewed at any time by agreement between the Consent Holder and the Councils.	
C92	The capitalisation bond shall expire upon the settlement on the Trust by the Consent Holder of the required capital sum.	
C93	All costs relating to the capitalisation bond must be paid by the Consent Holder.	Bentley & Co. HDC is concerned to understand whether 'all costs' are inclusive of those costs



		that may be incurred as a consequence of a disagreement between the parties, and the related processes this may entail including, for example, in respect of the risk assessment.
C94	In addition to the insurance cover required for the Rehabilitation Bond in Condition C70(e), the Consent Holder must throughout the term of this consent be able to demonstrate to the satisfaction of the Councils that it holds sufficient funds, insurances or other financial instruments ("cover") to enable any adverse effect on the environment resulting from the Consent Holder's activities and not authorised by a resource consent to be promptly avoided, remedied or mitigated. The Consent Holder must provide evidence to the Council annually that sufficient cover is in place. This evidence must be provided to Council at the same time as the Annual Work Programme is submitted as required by Condition C23 of this consent. Should the Consent Holder and the Council not agree on the sufficiency of the level of cover, 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 Council advising that the amount of the cover is disputed, such notice to be given by the Council within two weeks of notification of the amount of the cover. 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 President of the Institute of Professional Engineers in New Zealand. Such arbitrator shall give an award in writing within 30 days after his or her appointment, unless the Consent Holder and the Council agree that time shall be extended. In all other respects, the provisions of the Arbitration Act 1996 shall apply. Pending the outcome of that arbitration, the existing cover shall continue in force. The sum of the cover shall be adjusted in accordance with the arbitration determination.	
C95	The conditions relating to the capitalisation bond and the Trust form an integrated whole and are not severable.	

