

Before a joint hearing of the

Otago Regional Council and

Waitaki District Council

RM 20.024

IN THE MATTER OF of the Resource Management Act 1991

AND

IN THE MATTER OF Application by Oceana Gold (New Zealand) Limited for
resource consents for the Deepdell North Stage III
Project

**STATEMENT OF EVIDENCE BY JOHN KYLE FOR OCEANA GOLD (NEW ZEALAND)
LIMITED**

4 August 2020

Introduction

- 1 My name is John Clifford Kyle.
- 2 I hold an honours degree in Regional Planning from Massey University, obtained in 1987. I am the Managing Director of the firm Mitchell Daysh Limited, which practices as a planning and environmental consultancy throughout New Zealand.
- 3 I have been engaged in resource management planning for more than 30 years. My experience includes a mix of local authority and consultancy resource management work. Since 1994, I have been involved with providing consultancy advice with respect to regional and district plans, designations, resource consent applications, environmental management and environmental effects assessments. This work includes extensive experience with large-scale consenting projects involving inputs from multi-disciplinary teams. An outline of projects in which I have been called upon to provide resource management advice in recent times is included as **Appendix A**.
- 4 I am familiar with and have made numerous visits to the Macraes Mine area. I have been extensively involved in a number of resource management planning processes in Otago and with mining projects throughout New Zealand. I am also familiar with other extractive activities, having had experience with various quarry proposals and work with Fulton Hogan, South Roads, Isaac Construction and Bathurst Resources.
- 5 In preparing this evidence, I have reviewed:
 - (a) The applications and the associated technical reports that assist to make up the Assessment of Environmental Effects (**AEE**);
 - (b) The statements of evidence of all of the other witnesses giving evidence on behalf of OceanaGold (NZ) Limited (**OceanaGold** or **the Applicant**);
 - (c) The s42A reports prepared by Mr Purves on behalf of the Waitaki District Council (**WDC**) and Ms Neville on behalf of the Otago Regional Council (**ORC**); and

(d) Submissions made with respect to the applications.

6 Whilst I appreciate that this is not a case before the Environment Court, I have read and am familiar with the Code of Conduct for Expert Witnesses in the Environment Court Practice Note 2014. This evidence has been prepared in accordance with that code and I agree to comply with it. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed.

Scope of Evidence

7 I have been asked by OceanaGold to prepare planning evidence in relation to the Deepdell North Stage III mining application (**the Project or Proposal**).

8 My brief includes:

(a) A brief overview of the resource consents required to enable the proposed Deepdell North Stage III mining operation;

(b) Some comment on key matters raised in the s42A reports, as well as submissions;

(c) An assessment of the resource consent applications against the relevant statutory planning documents; and

(d) An assessment of the resource consent applications against the relevant sections of the Resource Management Act 1991 (**RMA or the Act**).

9 My colleague, Ms Hunter, has prepared evidence which provides an overview of the key potential environmental effects of the Project and how those effects are proposed to be addressed in consent conditions.

10 My firm was the primary author of the application for the Deepdell Project.

Resource Consent Applications

11 A detailed description of the Project and the consents required to authorise the various activities is contained in Chapters 3 and 4 of the AEE. In the interests of brevity, I do not repeat that analysis here. However, I

have set out below my precis of the key aspects of the resource consent applications.

Waitaki District Council - Land Use Consents and s127 Variation

- 12 Resource consents from the WDC are required for:
- (a) Extraction of minerals and overburden by mechanical means from the Pit;
 - (b) Deposition of waste rock produced from the Pit at the South Backfill Waste Rock Stack (**WRS**);
 - (c) Deposition of waste rock produced from the Pit at the Deepdell East WRS;
 - (d) The construction and use of temporary buildings;
 - (e) The construction and use of a haul road from the Coronation Haul Road to the Deepdell East WRS;
 - (f) The transport, treatment and processing of minerals extracted from the Deepdell North Stage III Pit;
 - (g) The construction, operation and maintenance of diversion drains, silt ponds and silt control facilities necessary for controlling runoff from the Deepdell North Stage III Project mining operation;
 - (h) Storage and use of diesel and use of explosives;
 - (i) Removal and placement of topsoil at the site into stockpile areas;
 - (j) Construction of noise attenuation bunds on the western side of Golden Point Road;
 - (k) Realignment, construction, use and maintenance of an approximately 900m section of Horse Flat Road; and
 - (l) The removal of structures and the rehabilitation of the Project Area, including formation of a Pit Lake.

- 13 Consent is also being sought under the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health (**NES Soil**). OceanaGold is also seeking to ensure the proposal is compatible with all existing land use issued for the wider Macraes gold Project by varying some of the conditions of consents issued by the WDC via section 127 of the Act.
- 14 Activities associated with the Project will extend across the Macraes Mining Project Mineral Zone (**MMPMZ**), the Rural Scenic Zone, and a small portion of the proposed noise bund is within the Rural General Zone.
- 15 The application assessed the proposal as a non-complying activity because the deposition and rehabilitation of the WRS and the hauling of ore does not comply with the critical zone standards for nighttime noise.¹ Mr Purves is of the view that only noise from the second of these activities, the hauling of ore, should be considered against the critical zone standard for the MMPMZ, and it is only this activity which triggers a non-complying activity status.
- 16 I understand that Mr Purves is of the view that because the construction of pits and WRS are specifically listed as a discretionary activity pursuant to Rule 6.3.2(1) in the MMPMZ, they do not trigger any aspects of Rule 6.3.3. Rule 6.3.3 states that:

The following activities are non-complying activities:

1. *Residential Activities*
2. *Commercial Activities*
3. *Any Activity which is not listed as a discretionary activity and which does not comply with one or more of the relevant Critical Zone Standards.*

- 17 The application adopted a more conservative approach following the direction set out in Section 1.8.4 of the Waitaki District Plan (**the District Plan**) which provides the following guidance (emphasis added):

¹ As outlined in the application, the activities will be undertaken close to and on the MMPMZ and the Rural Scenic Zone boundary, and the relevant noise standards for activities in the MMPMZ apply at the zone boundary (not at the boundary of habitable dwellings within adjacent zones). The hauling activities and the work associated with constructing the WRS will exceed the critical zone standard for noise at the zone boundary with the Rural Scenic Zone.

Critical Zone Standards are standards which are fundamental to the environmental standard or character which is sought to be attained for a zone or area. These standards often relate to matters which can have widespread or cumulative effects on the wider zone or area, such as noise and traffic generation. Because of their importance, all activities which fail to meet these standards are non-complying activities which face a rigorous test if they are to obtain resource consent.

- 18 I understand Mr Purves' point that the MMPMZ should be read such that the specific direction within the District Plan should prevail over the more general guidance. However, Section 1.8.4 does seem to me to be quite specific about what activity status applies where a critical zone standard is not met. I therefore suggest that the safest approach is to treat both activities as non-complying, and in any event, this is the basis upon which the application has been prepared. I note Mr Purves also suggests that the non-complying consent/s should be unbundled, and the remaining elements of the proposal should be assessed as a discretionary activity.
- 19 The Commissioner will have noted that the application approached this matter conservatively and included an assessment of all the required consents as if the non-complying activity status applied across the all of the land use consents required under the District Plan. It includes a detailed assessment of the relevant objectives and policies of the District Plan in the light of the requirements of section 104D(1)(b) of the Act. The application concludes that all the activities proposed will not be contrary to any of the relevant objectives and policies of the District Plan. For this reason, it is my opinion that the bundling question is probably not too critical in this case. I address the relevant matters in more detail later in this evidence. Notably I reach the firm opinion that the gateway imposed by section 104D(1)(b) is passed in this case.

Otago Regional Council – Various Permits

- 20 A number of consents are also being sought from the ORC to authorise the proposed activity. These are set out in Section 4.2 of the AEE and again in detail in Ms Neville's report. In summary, these provide for the following activities:
- (a) The discharge of contaminants to air;

- (b) The taking of surface water and groundwater to dewater the Deepdell North Stage III Pit;
 - (c) The discharge of material to land, the removal of vegetation and the earthworks;
 - (d) The discharge of rainfall runoff water and associated contaminants to land where it may enter ground water from the mined pit surface within the Deepdell North Stage III Pit for the purpose of constructing and operating an open pit mine;
 - (e) The disturbance, deposition (onto or into) and reclamation of modified stream beds or drainage channels for the purpose of establishing the site, including the pit and WRS;
 - (f) The placement of a culvert and earth embankment in the bed of an unnamed tributary of Highlay Creek for the purposes of realigning Horse Flat Road and all associated disturbance of the bed during construction; and
 - (g) The damming of water in Deepdell North Stage III Pit for the purpose of creating the Deepdell North Pit Lake.
- 21 Overall, the consents sought from the ORC are a discretionary activity and I understand that this is not contested.

Commencement, Lapse and Term of Consent

- 22 An unlimited term of consent and standard lapse date of five years has been sought for the land use consents. I understand that Mr Lee is content with a 35 year term for the landuse consent. I consider this to be appropriate, as the land use activities will result in long term modifications to the environment such as the pit lake, and ongoing rehabilitation and monitoring that will continue will need to be secured via enduring consent conditions.
- 23 A consent duration of 10 years for construction related consents and 35 years for operational related consents is sought for the regional council consents. Ms Neville recommends altering these to 6 years and 25 years respectively. I note that the submission prepared by Aukaha also requests

this. In my opinion, a longer consent term is appropriate. While the actual mining activity is relatively short term, there will be ongoing rehabilitation and monitoring requirements which will endure post the life of the mining activity. These measures are set out in the evidence of Mr Lee and Dr Thorsen, in particular. The consents impose ongoing obligations upon the consent holder (such as water quality monitoring and improvement if required) that will provide certainty that, in the long term, the effects of the mining have been suitably remediated. In my view, the consent term should be sufficiently long to allow these requirements to be met post the completion of mining at the site.

Matters Raised in the s42A Report and Submissions

- 24 A helpful summary of the issues raised by submitters is provided in the s42A reports.
- 25 The submissions made by the Department of Conservation (**DOC**), Te Rūnanga o Moeraki, Kāti Huirapa ki Puketeraki and Te Rūnanga o Ōtakāou (submission prepared by Aukaka) and the ORC (and in particular the Policy Team at the ORC) raise matters that are directly relevant to my planning assessment. Where appropriate, I make explicit reference to these submissions in my analysis.
- 26 The other submissions raise various concerns with the environmental effects of the project, and I have also considered them when addressing the relevance of the various statutory planning documents to this proposal. Ms Hunter deals with these in more detail.

Statutory Planning Assessment

- 27 The relevant planning documents are set out in the application. They include:
 - (a) Resource Management (National Environmental Standard for Air Quality) Regulations 2004 (**NES Air Quality**);
 - (b) Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 (**NES Soil**);

- (c) The National Policy Statement for Freshwater Management 2014 (**NPSFW**);
 - (d) The Operative Otago Regional Policy Statement, Proposed Regional Policy Statement and the Partially Operative Regional Policy Statement;
 - (e) The Regional Plan: Water for Otago (**Water Plan**);
 - (f) The Regional Plan: Air for Otago (**Air Plan**);
 - (g) The Regional Plan: Waste for Otago (**Waste Plan**);
 - (h) The Waitaki District Plan (**District Plan**); and
 - (i) Kāi Tahu Ki Otago Natural Resource Management Plan 2005.
- 28 In the following sections, I include a summary of my key conclusions on the relevant provisions within the respective Policy Statements and Plans.
- 29 At the outset, I note that my assessment of these matters is generally aligned with the view of the Reporting Officers for both of the consent authorities.
- 30 One preliminary matter arises from the submission from the ORC Policy Team. This suggests that the National Policy Statement for Freshwater Management 2020 is relevant. The submission infers that this came into force on 28 May 2020. That is not correct. In 2019, central government released a Proposed National Environmental Standard for Freshwater and a Proposed National Policy Statement for Freshwater. In May of this year, a Cabinet Paper was released on these documents which provided a high level commentary on the recommended changes as a result of submissions on the proposed documents. This paper also suggested that further changes might be made, and that the new NES and new NPS would be gazetted at the end of July, and operative in August 2020. As far as I am aware, this has not yet occurred. The submission is therefore incorrect. At this stage, there is no new NES or NPS.

The Otago Regional Policy Statements

31 The Otago Regional Council issued decisions on its Proposed Regional Policy Statement (**Proposed RPS**) on 1 October 2016. A significant number of appeals on various provisions were filed in the Environment Court. It is my understanding that most of the appeals have now been resolved, and many of the provisions within the Proposed RPS are effectively operative. The council has since issued a Partially Operative RPS which reflects the settled provisions. On this basis, I have focused my assessment on the provisions within the Proposed RPS and the Partially Operative RPS.

Chapter 1 – Resource Management in Otago is Integrated

32 Objectives and policies within Chapter 1 seek:

- (a) Otago’s resources are used sustainably to promote economic, social, and cultural wellbeing for its people and communities;² and
- (b) The integrated management of natural and physical resources to support the wellbeing of people and communities in Otago be recognised and provided for.³

33 In my assessment the proposal sits comfortably with these provisions.

34 The proposal’s contribution to the social and economic wellbeing of the community and Otago region is addressed in the evidence of Mr Copeland. The project will provide continued employment and income and contribute to expenditure in the region. The project will also prolong the utilisation of existing mine processing infrastructure and will further facilitate the ongoing operation of the Macraes Gold Project for some time into the future. These matters are also discussed by Mr Hine, the General Manager of the Macraes Operation.

35 The technical assessments that have been commissioned by OceanaGold have considered the actual and potential effects of the project on physical and natural resources in an integrated manner. This integration also extends into the management of effects, such as the offsetting that has been proposed. As explained in the evidence of others including Mr Lee,

² Objective 1.1, Policy 1.1.1, Policy 1.1.2.

³ Objective 1.2, Policy 1.2.1.

Dr Thorsen and Dr Ussher the mitigation and offsetting that is proposed has balanced the specific requirements of the directly affected ecological communities while seeking to achieve high quality environmental outcomes and gains. I return to this later in my evidence.

Chapter 2 – Kai Tahu Values and Interests are Recognised and Kaitiakitaka is Expressed

- 36 Key relevant provisions within Chapter 2 seek that (among other matters) the principles of Te Tiriti o Waitangi are taken into account in resource management processes and decisions⁴ and that Kai Tahu values, interests, and customary resources are recognised and provided for.⁵
- 37 In keeping with the principles of Te Tiriti o Waitangi, the relevant Kāi Tahu iwi mana whenua authority (through Aukaha) have been consulted as part of this proposal and it is intended that this will continue. This is discussed in the evidence of Mr Lee. I accept that how the proposal will affect Kai Tahu values and interests is for Takata Whenua to speak on. However it is my view the engagement undertaken thus far by OceanaGold, and the Takata Whenua related conditions described by Mr Lee and Ms Hunter (which require further consultation and collaboration with Takata Whenua) are a genuine attempt to align with these directives in the RPS. The proposed conditions provide for Takata Whenua involvement in the preparation of the ecological enhancement and offsetting plans. This is intended to assist kaitiakitanga and in turn facilitate the suitable recognition of cultural values during ecological restoration and enhancement efforts.

Chapter 3 – Otago has High Quality Natural Resources and Ecosystems

- 38 The relevant objectives and policies within Chapter 3 were not assessed as part of the AEE. This is because at the time of preparing the application the Environment Court had identified some vires issues with the content of Chapter 3 of the Proposed RPS.
- 39 This matter has subsequently been progressed between the appellant parties and I understand that in March 2020 the Court issued a further

⁴ Objective 2.1, Policy 2.1.1, Policy 2.1.2.

⁵ Objective 2.2, Policy 2.2.1.

consent order regarding some of the matters within Chapter 3. As a result, I understand the provisions within this chapter of the RPS are now largely settled.

- 40 Objective 3.1 seeks that the values of ecosystems and natural resources are recognised and maintained, or enhanced where degraded.
- 41 Relevant policies seek to:
- (a) Manage water quality within the region so that water quality is maintained where it is good and enhanced where it is degraded;⁶
 - (b) Maintain or enhance aquatic ecosystem health, indigenous habitats and species and their migratory patterns;⁷
 - (c) Maintain or enhance, as far as practicable, the natural functioning of rivers, lakes, wetlands and their riparian margins and aquifers;⁸
 - (d) Manage the beds of rivers, lakes, wetlands and their margins to safeguard the life supporting capacity of freshwater, maintain or enhance ecosystem health and indigenous biological diversity, and maintain or enhance as far as practicable their natural functioning and character and amenity values;⁹
 - (e) Manage water allocation and use so as to recognise and provide for the social and economic benefits of sustainable water use, avoid over allocation, and ensure efficient use;¹⁰
 - (f) Manage air quality to maintain this where it is good and enhance it where it is not in order to support human health outcomes, and to maintain or enhance amenity values;¹¹
 - (g) Safeguard the life supporting capacity of soil¹² and minimise soil erosion;¹³

⁶ Policy 3.1.1(a).

⁷ Policy 3.1.1(b).

⁸ Policy 3.1.1(d).

⁹ Policy 3.1.2(a).

¹⁰ Policy 3.1.3.

¹¹ Policy 3.1.6.

¹² Policy 3.1.7.

¹³ Policy 3.1.8.

- (h) Manage ecosystems and indigenous biological diversity in terrestrial and freshwater environments to maintain or enhance ecosystem health and indigenous biological diversity, and maintain or enhance as far as practicable areas of predominately indigenous vegetation and areas of buffering or linking ecosystems;¹⁴
- (i) Encourage, facilitate and support activities that contribute to the resilience and enhancement of the natural environment, by improving water quality and quantity, protecting and restoring habitat for indigenous species, regenerating indigenous species, mitigating natural hazards, protecting or restoring wetlands, improving the health and resilience of ecosystems, supporting indigenous biological diversity and important ecosystem services, improving access to rivers, lakes, wetland and their margins, and buffering or linking ecosystems, habitats and areas of significance that contribute to ecological corridors.¹⁵

42 Water modelling reports indicate that water quality downstream of the project will remain within already consented limits and will remain well within recommended environmental limits for protection of the water body and species that live within it. The evidence of Ms Hartwell addresses this matter in more detail. She has concluded that the Project will have minimal impact on downstream water quality. OceanaGold recycles water around the Macraes site, both to reduce the impact on water resources in terms of the volume of water that is taken, and to reduce the volume of contaminated water that is discharged, directly or indirectly, into surrounding water bodies and ground water. The same approach will be applied to this Project. Contamination levels will not be increased as a result of the Project. The adaptive management approach that OceanaGold is applying to water management at the site allows for implementation of a range of mitigation measures. This is reflected in the conditions discussed in the evidence of Ms Hunter.

43 Dr Ryder addresses the effects of the proposal on aquatic ecology and habitat within the affected streams and water resources downstream of the site. He confirms that the direct effects of the proposal are minor, largely

¹⁴ Policy 3.1.9I.

¹⁵ Policy 3.1.13.

affecting ephemeral watercourses with no values as fish habitat. The limits proposed for contaminant parameters will adequately protect aquatic values in receiving waterbodies.

- 44 Adequate erosion and sediment control is a key feature of the Project. These measures are described in detail in the Section 6.1 of the AEE which accompanied the application and further in the evidence of Mr Torvaleinen. The proposed measures meet existing widely accepted standards for erosion and sediment control.
- 45 The terrestrial and aquatic ecological values and effects associated with the Project have been described in Sections 5.10 and 5.13 of the AEE and by Drs Thorsen and Ryder. In terms of terrestrial values, Dr Thorsen has concluded that the site is highly modified due to the presence of existing farming and mining activities and it is largely dominated by exotic plant species. Overall, he assesses the indigenous ecological and biodiversity values of the site to be low. Despite this, Dr Thorsen acknowledges that there are some areas with valued terrestrial and aquatic habitat and species that will be affected by the Project. More specifically, some of these species or habitats (e.g. the producing grassland, seepage and ephemeral wetlands and shrubland vegetation) meet aspects of the 'significance' criteria as set out in the Partially Operative RPS, and also the Waitaki District Plan.
- 46 As I discuss later in this evidence, a comprehensive analysis of available means to manage effects on significant indigenous vegetation or habitat of indigenous fauna of the site has been undertaken. In my view the approach that has been undertaken is consistent with the methods set out within the Proposed RPS and relevant associated policy, and in particular, Policy 5.4.6 which sets out the key parameters to be applied to ecological offsetting.
- 47 Chapter 3 also contains objectives and policies relating to Otago's outstanding natural features, landscapes, seascapes, indigenous biological diversity, water bodies and soil resources. These sit under Objective 3.2.
- 48 There are no outstanding natural landscapes or features or scheduled regionally significant wetlands within the Project footprint.

49 I note that in its submission to the Waitaki District Council the ORC Policy team has asserted that the application is contrary to Policies 3.1.2, 3.1.9, 3.2.15 and 3.2.16 of the Partially Operative RPS. I disagree that this is the case.

50 Policy 3.1.2 relates to the beds of rivers and wetlands and their margins. It seeks to:

Manage the beds of rivers, lakes, wetlands, their margins, and riparian vegetation to:

- a) Safeguard the life supporting capacity of fresh water;*
- b) Maintain good quality water, or enhance it where it has been degraded;*
- c) Maintain or enhance bank stability;*
- d) Maintain or enhance ecosystem health and indigenous biological diversity;*
- e) Maintain or enhance, as far as practicable:
 - i. Their natural functioning and character; and*
 - ii. Amenity values;**
- f) Control the adverse effects of pest species, prevent their introduction and reduce their spread; and,*
- g) Avoid, remedy or mitigate the adverse effects of natural hazards, including flooding and erosion.*

51 All of these matters have been addressed in the application and in the evidence before this hearing. Dr Ryder concludes that the life supporting capacity of freshwater will continue to be safeguarded and ecosystem health will be maintained. Ms Hartwell addresses water quality issues and sets out a management regime for ensuring the maintenance of water quality in the waterways affected by discharges from the project. This regime has been picked up by Ms Hunter in relevant conditions of consent. Affected waterways will continue to properly function or will be enhanced in terms of their function. The proposal will not result in adverse effects from natural hazards, such as flooding or erosion. I disagree that the proposal is in any way inconsistent with this policy.

52 Policy 3.1.9 relates to ecosystems and indigenous biological diversity. It seeks to:

Manage ecosystems and indigenous biological diversity in terrestrial, freshwater and marine environments to:

- a) *Maintain or enhance:*
 - i. *Ecosystem health and indigenous biological diversity including habitats of indigenous fauna;*
 - ii. *Biological diversity where the presence of exotic flora and fauna supports indigenous biological diversity;*
- b) *Maintain or enhance as far as practicable:*
 - i. *Areas of predominantly indigenous vegetation;*
 - ii. *Habitats of trout and salmon unless detrimental to indigenous biological diversity;*
 - iii. *Areas buffering or linking ecosystems;*
- c) *Recognise and provide for:*
 - i. *Hydrological services, including the services provided by tall tussock grassland;*
 - ii. *Natural resources and processes that support indigenous biological diversity;*
- d) *Control the adverse effects of pest species, prevent their introduction and reduce their spread.*

53 These matters are addressed in the evidence of Dr Thorsen and Dr Ussher. Implementation of the offsetting measures they propose will result in net benefits to biological diversity and overall ecosystem health. The measures are specifically targeted at achieving a better ecological outcome than would be the case if the Project did not proceed. Areas of indigenous ecosystem likely to be affected by the project are already significantly compromised in terms of quality. This will likely continue if the project does not proceed because the alternative use for the land in question is continued grazing. In my opinion, the proposal is entirely consistent with the Policy 3.1.9 provisions.

54 Policy 3.2.15 is a process type policy which requires the council to identify the significant values of wetlands having regard to a range of factors. It is

difficult to see how this proposal might be viewed as being inconsistent with such a policy.

- 55 Policy 3.2.16 relates to managing the values of wetlands. This policy seeks to:

Protect the function and values of wetlands by all of the following:

- a) Maintaining the significant values of wetlands;*
- b) Avoiding, remedying or mitigating other adverse effects;*
- c) Controlling the adverse effects of pest species, preventing their introduction and reducing their spread;*
- d) Encouraging enhancement that contributes to the values of the wetland;*
- e) Encouraging the rehabilitation of degraded wetlands.*

- 56 Dr Thorsen has identified wetland values that are present within the proposed project site area and described their significance. Given the degraded nature of the wetland areas in question he proposes enhancement at an alternative site via offsetting. As indicated earlier, his approach is consistent with the guidance provided within Policy 5.4.6. The Ephemeral Wetland EEA has been selected for this purpose on the basis of proximity to the proposal site and because of its size (being the largest example within the Macraes E.D.), its unmodified but highly weed-infested nature, and the support of the land owner. I understand that with the offsetting that is proposed by Dr Thorsen this site could become a high quality ephemeral wetland example. This is consistent with e) above. It also assists with achieving c). Overall, wetland values within the Macraes ED will be enhanced by the implementation of these measures. I do not agree that the proposal is contrary to these provisions when they are viewed objectively in the round.

Chapter 4 – Communities in Otago Are Resilient, Safe and Healthy

- 57 Chapter 4 contains objectives and policies that seek to minimise natural hazard risk¹⁶ and ensure that hazardous substances, contaminated land

¹⁶ Objective 4.1, Policy 4.1.1, Policy 4.1.2, Policy 4.1.3, Policy 4.1.4, Policy 4.1.5, Policy 4.1.6, Policy 4.1.9, Policy 4.1.10.

and waste materials are managed so as to not cause harm to human health or the quality of the environment in Otago.¹⁷

- 58 The proposal does not constitute a natural hazard, but it is noted that mining activities can potentially exacerbate natural hazard risks. The evidence of Dr Bertuzzi confirms that the pit walls and associated works will be designed to be stable and safe both during operation and following rehabilitation in both a static and during foreseeable earth-shaking events. Mr Torvelainen confirms that the same discipline will be applied in the design and construction of the WRS.
- 59 Contaminated land and the use of hazardous substances on site will be managed using established and appropriate methodologies to contain and minimise any potential effects on the environment or human health.

Chapter 5 – People Are Able to Use and Enjoy Otago’s Natural and Built Environment

- 60 Chapter 5 includes a range of provisions that are specifically relevant to mineral exploration and extraction.
- 61 Objective 5.3 seeks that sufficient land is managed and protected for economic production. This is supported by Policy 5.3.1 which seeks to manage activities in rural areas to support the region’s economy and communities by (amongst other things) providing for mineral exploration, extraction and processing and Policy 5.3.5 which directs the functional needs of mineral exploration, extraction and processing activities to locate where the resource exists be recognised. The Waitaki District Plan also acknowledges the importance of known mineral deposits and seeks to discourage activities or development that are likely to compromise such resources.¹⁸
- 62 Objective 5.4 seeks the effects of the Proposal be minimised and its associated policies contain direction how this be done.
- 63 Policy 5.4.8 is an important policy insofar as the proposal is concerned as it is specific to managing the effects of mineral extraction. Also, particularly

¹⁷ Objective 4.6, Policy 4.6.2, Policy 4.6.5, Policy 4.6.6, Policy 4.6.7, Policy 4.6.8, Policy 4.6.9.

¹⁸ Refer Policy 16.7.2 of the Waitaki District Plan.

relevant is Policy 5.4.6 which sets out when offsetting of effects on indigenous biological diversity (which is a key mechanism for addressing the effects of the Proposal) can be considered. I have already made comment about how this policy has been used to guide the offsetting proposed by Drs Thorsen and Ussher.

- 64 Policy 5.4.8(a) requires that preference is given to avoiding the location of mineral extraction activities within (relevantly) areas of significant indigenous vegetation and significant habitats of indigenous fauna.
- 65 Policy 5.4.8(b) then recognises that if it is not practicable to avoid locating the activity within some of these areas due to the functional needs of the activity, adverse effects on values contributing to the nature of the significant vegetation and habitat areas should be avoided, remedied or mitigated. The policy then also provides for a consideration of offsetting proposals where adverse effects cannot otherwise be remedied or mitigated.
- 66 With regard to this project, it is important to note that it does not affect any scheduled areas of significance insofar as significant indigenous biodiversity, wetlands, vegetation, historic heritage or outstanding natural features or landscapes are concerned.
- 67 However, the vegetation and habitats within the Project footprint have been mapped by Dr Thorsen. He has found that there are some species and habitats that are identified within Schedule 4 of the Partially Operative RPS (which sets out the criteria for the identification of areas of significant indigenous vegetation and habitat for indigenous fauna) within the Project's footprint. Put simply, because the affected area exhibits some Schedule 4 attributes it qualifies for consideration under the policy.
- 68 Dr Thorsen describes Schedule 4 which defines a range of criteria to assist in determining significance. He has determined that the following areas within the site meet the *representative criteria* as set out in that Schedule:
- (a) Areas comprising seasonal gully drainage;
 - (b) Ephemeral wetlands;
 - (c) Seepages;

(d) Low producing grassland; and

(e) Shrubland

- 69 Whilst these areas and potentially the habitats within the waterbodies within the site meet the “representativeness” criteria, they are highly modified and degraded due to the effect of existing permitted activities.
- 70 In order to meet the requirements of Policy 5.4.8(a)(i) a number of elements of the proposal, which are not operationally constrained by location, have been located to avoid areas of potential significance. For example, four alternative waste rock stack locations were identified.¹⁹ Option A would have had less effect on areas of significant vegetation and habitats. However, this option was constrained from a technical perspective and would have given rise to significant noise effects on adjacent properties. Option D was ultimately selected as it has the lowest effect on the relevant listed criteria in Policy 5.4.8(a) when compared to the remaining options.
- 71 Policy 5.4.8(b)(ii) recognises that where it is not practicable to avoid locating within significant areas due to the functional needs of the activity, other management measures can then be applied. These measures follow a management cascade that avoids, remedies or mitigates adverse effects on values to maintain their outstanding or significant nature. Where remediation or mitigation is not practicable biological diversity offsetting, and then biological diversity compensation is available as a management option.
- 72 Dr Thorsen identifies proposed remediation measures.²⁰ He also notes that total remediation of the loss of the terrestrial indigenous vegetation and habitat at the site is not feasible. This would require reestablishment and permanent protection of what is to be lost and this is not compatible with the wishes of the local community.²¹ Further, practicalities associated with establishing shrubs on waste rock stacks mean that remedying the loss of vegetation values where they previously existed is not feasible.

¹⁹ See Figure 39 and Table 23 within the resource consent application on pp. 151 -153, and Section 7.2.3.

²⁰ Reinstatement of the flow of the intermittent/ephemeral stream diversion within Camp Creek and creation of habitat for freshwater crayfish and creation of new lizard habitat and a new pit lake which will remediate the loss of Black Backed Gull nesting habitat in Deepdell South Pit.

²¹ The community would prefer to see the rehabilitated area used for grazing purposes.

- 73 Dr Thorsen also refers to proposed mitigation.²²
- 74 As can be seen from the foregoing analysis, the Applicant has adhered to a cascading strategy of avoidance, followed by remediation and mitigation to manage the effects of the proposal on affected ecological and biodiversity values. Dr Thorsen has also assessed whether any residual adverse effects accrue in order to determine if offsetting is also necessary. He concludes that offsetting is necessary in the circumstances.
- 75 Both he and Dr Ussher identify this offsetting and how the extent and nature of that offsetting is consistent with best practice. In particular, they show how the offsetting proposed is consistent with the requirements of Policy 5.4.6,²³ which is specific to offsetting and describes a range of best practice requirements. The offsetting obligations are reflected in the conditions of consent that have been proposed which are attached to the evidence of Ms Hunter.
- 76 With regard to the remaining elements of this Policy, it is my opinion that:
- (a) The proposal is not likely to adversely affect the health and safety of the community. This is addressed, in particular, in the evidence of Mr Kelly (transportation effects), Mr Elith (blasting and vibration effects), Mr Trevathan (noise effects) and Ms Harwood (air quality effects). I also note the health and wellbeing of the community was specifically considered in determining the preferred location of the waste rock stack as alternatives resulted in more significant noise effects;
 - (b) The proposal will not result in a long term mining activity. Currently only two years of mining will be enabled by the consents, which will be followed by one year of rehabilitation;
 - (c) There is no particular need to apply the precautionary approach to the project. There is reasonable certainty about the effects that will arise from the project. The measures to avoid, remedy or mitigate effects

²² Including relocating certain plant species that are of ecological importance to safe site(s) in an Ecological Enhancement Areas (such as the nearby OceanaGold covenants).

²³ Including a likely reworded 5.4.6(c) which I understand is likely to read: The offset ensures there is no loss of individuals of Threatened taxa, and no measurable loss within the ecological district to an At Risk-Declining taxon under the New Zealand Threat Classification Systems (NZTCS), other than Myrtaceae species.

are reasonably conventional and the Applicant has extensive and successful experience in implementing these. The effects of the proposal on water quality will be subject to close monitoring and adaptive mitigation measures implemented where necessary. This is discussed in the evidence of Ms Hartwell.

- 77 In summary, it is my opinion that the proposal is consistent with Policy 5.4.8. Where avoidance of the effects of the project has not been practicable (i.e. the pit due to the physical location of the mineral resource and the waste rock stack due to the need to locate this close to the pit), remediation and mitigation of effects on significant values is proposed. An important aspect to bear in mind with this project is that a significant portion of it is “Brownfields” in nature – being a re-working of a previously back-filled pit, and the in-filling with waste rock of another pit. By its nature therefore, the project (or at least that part of it that involves previously mined areas) avoids the need to disturb previously unmined areas to an extent.
- 78 The evidence of Mr Lee, Dr Thorsen and Dr Ussher confirm that where any residual adverse effects remain, the Applicant proposes to offset these. That offsetting approach is consistent with the approach set out within Policy 5.4.6. It is likely to be highly effective and will deliver sound ecological and resource management outcomes.

Lizards

- 79 Dr Tocher has assessed the effect of the Project on lizards. In particular, Dr Tocher has assessed whether the proposed mitigation and offsetting “package” set out by Dr Thorsen was sufficient to ensure a no net loss outcome for lizard species and their habitat, post Project. Dr Tocher has also turned her mind to whether any further measures might be necessary to achieve a no net loss outcome.
- 80 This is important from both a planning perspective and in terms of the obligations that OceanaGold would have to meet under the Wildlife Act 1954. As I understand it, these latter obligations will often require stringent management approaches to be applied in order to properly protect affected species and their habitats.

- 81 Dr Tocher has recommended the preparation and implementation of a Lizard Management Plan, a draft of which is attached to her evidence. This is based on applying an adaptive management approach to managing lizard values and effects. Dr Tocher has collaborated with DOC in undertaking this work. I understand there are a few issues that remain to be resolved between Dr Tocher and DOC. However, there is a high level of agreement that her approach is technically sound and fit for its intended purpose.
- 82 In undertaking her assessment, Dr Tocher has formed the view that offsetting for lizard values across the four lizard species affected by the Project would be challenging. This is because the population size and habitat use of each species within the Project area is not well understood.
- 83 As I understand it, this information is important when offsetting measures are being formulated. Put simply, having the ability to quantify what might be lost is important to determining what amount of offsetting should be applied in order to achieve no net loss.
- 84 Dr Tocher recommends that biological diversity compensation should be applied to effectively manage any residual adverse effects of the Project on lizards and the interactions with DOC experts on this point suggests that this compensatory approach will be required under any wildlife permit that is issued for the project. The details of this are set out within Dr Tocher's evidence, including the need to prepare and implement the Lizard Management Plan. The measures are comprehensive. Dr Tocher concludes that if this Lizard Management Plan is implemented effectively, a no net loss outcome for lizard values of the Macraes ED will occur.
- 85 Policy 5.4.6A of the PRS relates specifically to biological diversity compensation. This policy falls under Objective 5.4 which states:

Adverse effects of using and enjoying Otago's natural and physical resources are minimised.

- 86 Policy 5.4.6A enables consideration of biological diversity compensation to achieve this objective. The policy states:

Policy 5.4.6A Biological Diversity Compensation

Consider the use of biological diversity compensation:

- a) *When:*
- i. *Adverse effects of activities cannot be avoided, remedied, mitigated or offset; and*
 - ii. *The residual adverse effects will not result in*
 - 1. *The loss of an indigenous taxon (excluding freshwater fauna and flora) or of any ecosystem type from an ecological district or coastal marine biogeographic region;*
 - 2. *Removal or loss of viability of habitat of a threatened or at risk indigenous species of fauna or flora under the New Zealand Threat Classification System (“NZTCS”);*
 - 3. *Removal or loss of viability of an originally rare or uncommon ecosystem type that is associated with indigenous vegetation or habitat of indigenous fauna;*
 - 4. *Worsening of the NZTCS conservation status of any threatened or at risk indigenous freshwater fauna.*
- b) *By applying the following criteria:*
- i. *The compensation is proportionate to the adverse effect;*
 - ii. *The compensation is undertaken where it will result in the best practicable outcome, preferably;*
 - 1. *Close to the location of development;*
 - 2. *Within the same ecological district or coastal marine biogeographic region;*
 - iii. *The compensation will achieve positive biological diversity outcomes that would not have occurred without that compensation;*
 - iv. *The positive biological diversity outcomes of the compensation last for at least as long as the adverse effects of the activity; and*
 - v. *The delay between the loss of biological diversity through the proposal and the gain or maturation of the compensation’s biological diversity outcomes is minimised*

87 In my assessment, this policy is somewhat at odds with itself. On the one hand, it allows for consideration of compensation as a management response but by virtue of a)ii, it limits the circumstances when compensation can be applied. Unfortunately, these circumstances are mostly those that would apply where compensation needs to be utilised. In

fact, it is difficult to envisage many compensatory efforts where the results specified in a)ii did not occur. In the present context, for the reasons Dr Tocher explains, a technically robust offset to address effects on lizards is not available. Compensation is the effects management category that must then be considered, and by its very nature, the mining activity proposed will inevitably cause the loss of some habitat for at risk lizards (for which compensatory actions are proposed).

- 88 Notably, the approach put forward by Dr Tocher will achieve the criteria set out within part b) of the Policy. Moreover, the Lizard Management Plan is required to be robust enough to meet Wildlife Act obligations which are necessarily stringent. A high performance bar is set by both requirements. The overall outcome insofar as lizards are concerned will be consistent with Objective 5.4, in that effects will be suitably minimised. The outcome will also be consistent with Objective 3.1, which seeks that the values of ecosystems and natural resources are recognised and maintained, or enhanced where degraded.
- 89 As Dr Tocher notes in her evidence, if the compensatory actions established in the Lizard Management Plan are implemented effectively, a no net loss outcome for lizard values of the Macraes Ecological District will occur, including for the lizard species that are classified “at risk”.
- 90 In terms of assessing the application, it is necessary to have regard to any relevant provisions of the RPS by virtue of section 104(1)(b) of the Act. Whilst Policy 5.4.6A is relevant insofar as biological diversity compensation is concerned, its inherent internal conflict raises difficulties in its application. These difficulties should, in my view, weigh on the extent to which part a)ii of the policy should be applied, particularly in light of the evidence that the measures proposed will achieve the objectives to which the policy relates.
- 91 I also note that in Mr Purves’ section 42A report at paragraph 49, he sets out the matters that the Commissioners must have regard to in coming to a decision under section 104(1) of the RMA. I note that Mr Purves omits from his list section 104(1)(ab) which was inserted in 2017 and is “*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 effect on the environment that will or may result from allowing the activity". Given the broad nature of this requirement, in my opinion, this may provide a suitable route by which the identified problem caused by Policy 5.4.6Aa)ii can be overcome.

Otago Regional – Water Plan

- 92 Both Section 9.7.1 of the AEE and Ms Neville's s42A report contain a fulsome assessment of the relevant objectives and policies of the Otago Regional Water Plan. Both conclude that the proposal is generally consistent with the relevant matters. I agree with this summation.
- 93 As mentioned earlier, a submission has been made to the applications before the WDC by the ORC. This submission suggest that the application must be consistent with matters within Chapter 10 as they relate to regionally significant wetlands. These provisions were not addressed in the application, nor are they addressed in Ms Neville's report. This is of no surprise to me because there are no scheduled wetlands affected by the project. Nor do the wetland areas affected by it meet the other criteria for regional significance.
- 94 Policy 10.4.1 sets out the values which confer significance to wetlands within the region.²⁴
- 95 Policy 10.4.1A then explains how regionally significant wetlands have been identified in the Plan. A wetland that exhibits the values set out in Policy 10.4.1 has been included in Schedule 9 of the Plan. All wetlands located on sites which are higher than 800m above sea level, regardless of whether

²⁴ These values are identified as:

- (a) Habitat for nationally or internationally rare or threatened species or communities;
- (b) Critical habitat for the life cycles of indigenous fauna which are dependent on wetlands;
- (c) High diversity of wetland habitat types;
- (d) High degree of wetland naturalness;
- (e) Wetland scarce in Otago in terms of its ecological or physical character;
- (f) Wetland which is highly valued by Kai Tahu for cultural and spiritual beliefs, values and uses, including waahi taoka and mahika kai;
- (g) High diversity of indigenous wetland flora and fauna;
- (h) Regionally significant wetland habitat for waterfowl; and
- (i) Significant hydrological values including maintaining water quality or low flows, or reducing flood flows.

they exhibit the values set out in Policy 10.4.1 are also deemed to be significant.

96 Policy 10.4.2 requires the avoidance of adverse effects from an activity on a regionally significant wetland (scheduled or above 800m), or on a value that ascribes regional significance. Where avoidance of such effects cannot be achieved, the policy provides for remediation or mitigation but only in limited circumstances.

97 Having reviewed these policies I conclude that:

(a) The proposal does not affect any scheduled wetlands and it is not situated on land that is higher than 800m. It therefore does not affect any wetland which qualifies under Policy 10.4.1A.

(b) Policy 10.4.2 requires that adverse effects on a wetland which exhibits any of the regionally significant wetland values as set out in Policy 10.4.1 are also to be avoided. “Regionally significant wetland values” are those values that meet the criteria identified within Policy 10.4.1. Whether such values prevail in the circumstances is a matter for expert assessment. The assessment by Dr Thorsen confirms that the affected wetland area does not possess the qualifying criteria within Policy 10.4.1. In particular he concludes that with regard to the specific matters set out in Policy 10.4.1 the affected wetlands have been extensively modified by past and present farming activities, to the extent that they are poor examples of these wetland types (ephemeral and seepage wetlands). The wetlands within the Project footprint are therefore so degraded, limited in size and of marginal quality such that their collective or individual values should not be considered as significant in the regional or even the district context when assessed on an objective basis.

(c) Having said this, Dr Thorsen does conclude that the wetland types within the project footprint have some conservation status due to them being “naturally uncommon” at a national scale. This finding is the rationale for the offsetting that he proposes. Whilst these wetland types are naturally uncommon nationally, they are not particularly scarce in the Otago context. Mapping indicates that there are at least 1,360 of these types within the Macraes Ecological District.

- (d) The wetland examples within the site are believed to have little value to Kai Tahu. They are dry most of the time and do not provide the cultural value of permanent wetlands such as mahika kai or habitat for taonga species and are also highly modified. Kai Tahu cultural values attached to these wetlands have not been identified as a significant issue in the submission that was made by Aukaha with respect to the Project.
- 98 On the basis that these wetland types have also not been specifically scheduled in the Water Plan, there is limited protection in both the regional and district plans for these areas and permitted activities (e.g. farming) could continue to modify and/or result in the complete loss of these habitats regardless of whether the Project proceeds or not.
- 99 Overall, it is not considered that the Project will adversely impact on any regionally significant wetland values such that the avoidance of adverse effects is required in accordance with Policy 10.4.2.
- 100 It is also noted that the Water Plan provisions relating to wetlands pre-dates the RPS requirements and these provisions have not yet been reviewed to give effect to these provisions. As identified earlier the approach that the Applicant has adopted to effects management is entirely consistent with the requirements and outcomes sought by the more current RPS provisions.

The Waitaki District Plan

- 101 As outlined in paragraphs 15 to 20 above, the resource consents required from the WDC for the Project have been assessed in the application as non-complying activities in terms of the District Plan. Because it is the conservative approach, I follow the same approach here. The relevant objectives and policies are identified and assessed in section 9.8 of the application. This assessment assumed that the required consents would be “bundled”, and all activities would need to be considered in terms of the requirements of section 104D(1)(b) of the Act.
- 102 In my opinion the key relevant matters from the District Plan derive from the following:

- (a) The Mineral Zone provisions and the provisions of the Rural Zone; and
- (b) The provisions in Chapter 16 which relate to biological diversity and ecosystems within the District.

Mineral Zone

103 Section 16.7.4 of the Plan sets out that:

The Council recognises the importance of the mineral extractive industry to the District and will seek to protect known deposits that are, to a greater or lesser extent, being extracted. This is particularly relevant to the gold mining at Macraes Flat, and the extraction of limestone for the purposes of cement manufacturing near Whitestone which was recognised in the previous Plan. Both these locations are considered as specific policy areas. The Council shall take into account the potential loss of access to these minerals when considering any applications for any future activities or developments. The Council however also considers that controls are necessary with respect to the extractive operations because the scale of the operations, the sensitivity of the area, and the management of the operations may vary considerably. For these issues to be adequately addressed, Council considers individual proposals need to be assessed on their merits. This will also enable the Council to set conditions on the management of the operation that are appropriate to the scale of the operation and sensitivity of the area.

104 Quite clearly mining (extractive) activities are important in the District and this derives primarily from the economic and social benefits that accrue. Mr Copeland identifies the importance of the Deepdell project and the Macraes operation in general in that regard. Of course, given the scale of such activities and the effects that occur, it is generally necessary to carefully manage the environmental effects that arise. The District Plan provides some useful guidance about this and includes some important performance standards to assist with managing the intensity of the effects that arise. Notably mining is able to occur in the Mining Zone or the Rural Zone subject to obtaining necessary consents.

105 Objective 16.7.1.6 states:

Extractive industries are given the ability to access minerals but in a way that avoids, remedies or mitigates adverse effects on the environment.

106 Relevant policies include:

16.7.2 Policies 6

- 2 To recognise the potential adverse effects of extractive operations, including mineral exploration, on the rural environment, and to control such operations in order that an assessment may be made as to the sensitivity of an existing area and the degree to which an operation will avoid, remedy or mitigate any adverse effects on the amenity and environment of the rural area.*
- 3 To provide for a mining zone at Macraes Flat in recognition of the scale and intensity of the mining operation while ensuring the adverse effects of mining operations are avoided, remedied or mitigated.*
- 4 To ensure that after mining, sites are rehabilitated sufficiently to enable the establishment of activities appropriate to the area.*
- 5 To avoid, remedy or mitigate adverse effects on the rural amenity and environment by, where appropriate, encouraging extractive industries to continue in existing locations.*

107 In my opinion the Project is consistent with (and is certainly not contrary to) these provisions, noting that:

- (a) The technical assessments that have been prepared in support of this Project have carefully assessed the proposed activities against the existing environment, as well as taking into account any sensitivities that exists within or adjacent to the site. Where relevant these assessments have also taken into account cumulative effects arising from this proposal and the other existing mining activities at Macraes. The assessments conclude the effects of the proposal can be effectively managed to meet accepted environmental performance standards, provided suitable controls are applied to the operations and subject to adherence to best practice mining and rehabilitation methodologies. Of course, it is necessary to apply an appropriate suite of conditions to suitably avoid, remedy, mitigate or offset any adverse effects identified. Ms Hunter sets out the conditions that are proposed and she reaches the conclusion that they will be effective and fit for purpose, given the effects that likely arise.

- (b) Upon completion of the mining activity, the site surrounding the Pit lake will be rehabilitated to pastoral farmland. This accords with the existing surrounding land use and with the wishes of the local community. As part of this proposal, the existing pit at Deepdell South will be almost all backfilled and rehabilitated as part of the proposal so that it more closely resembles the pre-mining landscape and it will also be able to be grazed after rehabilitation.

Rural Zones

- 108 Chapter 16.5 of the District Plan notes the rural environment has particular amenity and environmental values which are important to rural people, including privacy, quiet, rural outlook, spaciousness and ease of access. Objective 4 relates to rural amenity and has particular relevance. It seeks:

A level of rural amenity that is consistent with the range of activities anticipated in the rural areas, but which does not create unacceptably unpleasant living or working conditions for the District's residents and visitors, nor a significant deterioration of the quality of the rural environment.

- 109 16.5.2 includes a range of relevant policies.
- 110 Policy 4 1 seeks to encourage a wide range of rural land use and land management practices in the Rural General Zone, without increasing the potential for conflict or the loss of rural amenity. This is generally to be achieved by ensuring that subdivision is limited to moderate sized rural allotments. Other policies under Objective 4 primarily focus on managing the scale of rural subdivision and residential activity in order to retain the amenity of openness and to assist in protecting the quality of the water resources. This is not particularly relevant here.
- 111 Policy 4 3 is relevant as it requires the setting of performance standards or to use enforcement provisions for activities that may cause unpleasant living or working conditions for other people in the rural community, or that could cause a significant adverse effect to the environment. The conditions attached to the evidence of Ms Hunter have been prepared to specifically avoid such unwanted outcomes.

112 The remaining policies under Objective 4 relate to managing the effects of intensive farming,²⁵ provisions to avoid reverse sensitivity effects associated with the establishment of residential dwellings in the rural environment,²⁶ and to encourage further work to be completed to assist in understanding the state of the environment.²⁷ This latter provision is assisted by the Applicant's proposal to monitor the effects that will arise from the Deepdell Project.

113 Objective 6 is specific to mineral extraction. It states:

Extractive industries are given the ability to access minerals but in a way that avoids, remedies or mitigates adverse effects on the environment.

114 Policies that support this objective seek:

1. *To acknowledge the importance of known mineral deposits in the District by, where appropriately, discouraging the establishment of future activities or developments that are likely to compromise access to these mineral deposits.*
2. *To recognise the potential adverse effects of extractive operations, including mineral exploration, on the rural environment, and to control such operations in order that an assessment may be made as to the sensitivity of an existing area and the degree to which an operation will avoid, remedy or mitigate any adverse effects on the amenity and environment of the rural area.*
3. *To provide for a mining zone at Macraes Flat in recognition of the scale and intensity of the mining operation while ensuring the adverse effects of mining operation are avoided, remedied or mitigated.*
4. *To ensure that after mining, sites are rehabilitated sufficiently to enable the establishment of activities appropriate to the area.*
5. *To avoid, remedy or mitigate adverse effects on the rural amenity and environment by, where appropriate, encouraging extractive industries to continue in existing locations.*

115 Key conclusions in this context are:

²⁵ Policy 4(5).

²⁶ Policy 4(6).

²⁷ Policy 4(7).

- (a) The importance of extractive industries, such as Macraes, to the district's economic and social wellbeing is acknowledged. Provision for the Macraes mining operation is specifically recognised within the policies.
- (b) An avoid, remedy and mitigate approach is promoted to manage adverse effects arising from extractive industries, including Macraes. This has informed the way the Applicant has approached the proposal, and the various technical reports set out how the effects of the Deepdell Project can and will be managed to achieve this. The conditions attached to the evidence of Ms Hunter assist in aligning the proposal with this policy thrust.
- (c) The need to rehabilitate mined sites is specifically recognised. The evidence of Mr Lee sets out the proposed approach to rehabilitation for this Project.
- (d) The fifth policy recognises that consolidating extractive industries in locations that already play host to such activities is an important way of addressing effects on rural amenity. The Deepdell Project is an extension to existing activities at Macraes, is partly a Brownfields project, and importantly, ore extracted from the site can be processed via the utilisation of the existing infrastructure already located at the OceanaGold operation.

116 In my assessment, the proposal is consistent with meeting the outcomes foreseen within Objective 6 and the supporting policies.

Rural Scenic Zone - Landscape Provisions

117 The District Plan contains provisions which address effects on landscape values of the Rural Scenic Zone which the Project is either located within or immediately adjacent to.

118 The relevant provisions state:

16.8.2 Landscape Objective

Subdivision, use and development are managed so that: ...

- *the overall landscape qualities of the Rural Scenic Zone are retained.*

16.8.3 Policies

...

- 3 *To manage landscape change in the Rural Scenic Zone in a manner that maintains the overall character of the significant landscape, which forms the basis of the visual amenity associated with this Zone.*
- 6 *To assist in achieving the outcomes in Policies 2 to 5 above, the following policies are to be considered against any subdivision, use or development applications:*
 - ...
 - f) *Earthworks are encouraged to be located away from visually sensitive areas, and where practicable towards the edges of the landform and vegetation patterns;*
 - h) *Earthworks, where possible, should be restored and finished to a contour sympathetic to the surrounding physiography and should also, where possible, be revegetated with a cover appropriate to the site and setting;*
- 7 *To manage siting, design, trees species and the management of tree planting within the Rural Scenic Zone in order to prevent wilding spread.*

119 The evidence of Mr McKenzie, with respect to landscape matters, concludes that the landscape qualities of the land affected by the Project will be suitably maintained. This will be achieved through contouring of the WRS and back filling of the proposed Deepdell South Pit so that it resembles the surrounding natural landforms. Ground cover will be re-established to emulate the existing pasture cover. The general shape, slopes and colour of the completed and revegetated landforms will be sympathetic to the natural slopes of the area which give the area its rural landscape quality. The rehabilitative measures described by Mr Lee will assist in moderating the overall visual effect of the Project and will assist in retaining the landscape values of the surrounding rural area. I understand that these measures have already been successfully implemented elsewhere at Macraes and will ensure that long term effects are at acceptable levels to retain the overall landscape qualities of the Rural Scenic Zone.

- 120 The evidence of Mr McKenzie also assists to confirm that the project will sit comfortably with Policy 16.8.2.3, noting that the effects on visual amenity values that will arise from the Project are minor relative to those effects already consented for the existing mining activities at Macraes, and the mining activities are recognised and accepted as contributing to the central landscape identity for the Macraes Land Unit.
- 121 Cumulative effects on landscape or visual amenity values are not considered to be significant nor adverse. Mr McKenzie confirms that the only location where the proposal will be able to be viewed against a backdrop of the wider mining activities at Macraes is from a single viewpoint location on Horse Flat Road, close to the proposal. Any cumulative effects of the proposal on this viewpoint will reduce to moderate after rehabilitation.
- 122 As identified by Mr Lee, extensive shaping and re-vegetation (rehabilitation) of the Project area is proposed. This assists to achieve Policy 16.8.2.6.

Biological Diversity Provisions

- 123 Dr Thorsen has assessed that some of the species and habitat types within the site meet the significance criteria listed in Policy 16.9.3 of the District Plan insofar as:

<i>Policy 16.9.3 Criteria</i>	<i>Description</i>	<i>Habitat within the Project Footprint</i>
Representativeness	<i>The area supports an example of a particular vegetation type, habitat or ecological process that is typical of the ecological district relative to the pre-European baseline and contributes to maintaining the appropriate proportional representation of that feature</i>	Ephemeral wetlands Seepage wetland Low producing grassland Seasonal gully drainage channels Shrubland vegetation

Policy 16.9.3 Criteria	Description	Habitat within the Project Footprint
Rarity and Distinctiveness	<i>The area supports an indigenous species, habitat or community, which is rare and vulnerable within the ecological district or threatened nationally.</i>	Ephemeral wetlands Seepage wetland Low producing grassland and shrubland vegetation

124 The District Plan provisions most relevant to the effects of the Project on such areas state:

16.9.2 Objectives

- 1 *The maintenance of biological diversity, nature conservation values, and ecosystem functioning within the district by:*
 - *The protection of areas assessed as having significant indigenous flora and significant habitats of indigenous fauna...*

16.9.3 Policies

- 1 *To manage the adverse effects of the use or development of land on significant indigenous vegetation or significant habitats of indigenous fauna so that the values of these areas are protected.*
- ...
- 7 *To promote long-term sustainable protection of areas that have significant indigenous vegetation and significant habitats of indigenous fauna by encouraging landowners to investigate management options which maintain or enhance these sites and by supporting farmers and local community groups in private or valley conservation initiatives.*

125 I have already discussed the approach that has been adopted by the Applicant to the management of adverse effects on these biological values. Although alternative sites for certain elements of the Project have been considered complete, avoidance of all of the areas of potential significance cannot be practically achieved. The remediation, mitigation and offsetting measures that are proposed are, in my view, comprehensive, they align

with best practice, and will ensure that there will be no residual adverse effects on these biological values.

126 While some individuals or communities within the Project footprint will be lost, the proposed management actions will mean the values attributed to that particular vegetation or habitat type will be suitably protected and enhanced at the Ecological District scale. The evidence of Dr Thorsen sets out the proposed approach.

127 With respect to the other effects of the Project on ecology and biodiversity, the most relevant objectives state:

16.9.2 Objectives

1 *The maintenance of biological diversity, nature conservation values, and ecosystem functioning within the district by:*

...

- *The maintenance of other indigenous flora and fauna associated with wetland, riparian areas, alpine areas and other areas that have other particular nature conservation values.*

2 *The maintenance or enhancement of the quality of water and the coastal environment, wetlands, lakes, rivers and their margins and the protection of these environments from inappropriate subdivision, use and development.*

128 As noted above, it is apparent from the evidence of Dr Thorsen that the site is currently highly modified due to the presence of existing farming and mining activities. The site is dominated by exotic plant species. He concludes that due to the existing modification and limited impact on any significant sites, the proposed mining activity is not considered to be inappropriate.

129 A number of minor and highly modified water courses will be directly affected by the proposal. These water courses are minor in terms of their contribution to downstream hydrology and do not hold any significant aquatic ecological values. This is confirmed by Dr Ryder. There may be some impacts on the habitat of koura, however this habitat (if such species are in fact present in the drainage channels currently) can be recreated and it is proposed that this will occur.

130 Areas of indigenous flora and fauna that may be removed or displaced as a result of this proposal will not result in any loss of overall ecological connectivity or species diversity. Furthermore, the remediation, mitigation and offsetting measures that are proposed will ensure that the significant indigenous flora and fauna that will be affected by the Project are properly accounted for, and that overall, such values and biological diversity will be sufficiently protected and maintained in the longer term. In my opinion, this approach is consistent with the management outcome set out in Objective 16.9.2.1.

131 The evidence of Dr Ryder shows how the matters within Objective 16.9.2.2 will be achieved.

132 Other relevant policies state:

16.9.3 Policies

2 *To manage the effects of land use activities so that they avoid, remedy or mitigate adverse effects on:*

i freshwater fish habitat, fish passage and aquatic ecosystems generally, and water quality and quantity and/or

ii important ecological functions such as connectivity and hydrology.

4 *To recognise that indigenous vegetation communities and associated fauna, other than areas with significant indigenous vegetation or significant habitats of indigenous fauna, may have nature conservation values in:*

- Maintaining connectivity between other indigenous vegetation and/or*

- Providing important habitat for species reliant on patchwork of indigenous vegetation (e.g. birds, lizards)*

and to manage these areas so that the nature conservation values are maintained in those areas.

6 *To manage the effects of the use, development and protection of land on the natural character of wetlands, rivers and lakes and their margins, having regard to the indigenous vegetation or habitat for indigenous fauna at a locality and the water quality and quantity of the waterbody concerned.*

- 8 *When considering resource consents that come before the Council, to ensure that regard is given to any adverse effects of the activity on the natural character of the District's environment and on remaining indigenous vegetation and habitat; and that opportunities are taken to promote the retention of indigenous vegetation and habitat.*
- 9 *To manage the effects of the use, development and protection of land on the natural character of the coastal environment and the beds of rivers, streams and wetlands, and the margins of lakes, rivers, streams and their wetlands; and having regard to the indigenous vegetation and habitat for indigenous fauna at a locality and the quality of the water, and also having regard to those important landscapes identified under Issue 7.*

133 My comments above with respect to the work undertaken by Drs Ryder and Thorsen also apply here. Moreover, the evidence of Ms Hartwell assists to show how water quality in the affected catchment will be managed, such that key ecological values can be maintained. The activities proposed and the management approach to be adopted to the management of biological values means that a high level of consistency will be achieved with these provisions.

Other Relevant Provisions

134 With regard to other provisions in the Plan particularly those relating to heritage,²⁸ Takata Whenua values,²⁹ township zone,³⁰ and transport,³¹ I agree with the assessment set out in the AEE and do not consider the proposal to be contrary to any of those relevant matters.

Other Planning Documents

135 In my opinion, the planning documents I address above contain the most relevant provisions when considering the proposal. However, for completeness, I have reviewed the other documents listed in paragraph 27 of my evidence, and the analysis of them in the application, and where relevant, the respective s42A reports. In my opinion, there are no

²⁸ Objective 2.3.1, Policy 2.3.2(1), Policy 2.3.2(2).

²⁹ Objective 1.3A and Objective 1.3B.

³⁰ Objective 15.3.2(2) and Policy 15.3.3(5).

³¹ Objective 6.2.2(1), Objective 6.3.2(2), Policy 6.3.3(4), Policy 6.3.3(5), Policy 6.3.3(8).

provisions in those documents that would prevent consents being granted in accordance with the conditions proffered by Ms Hunter.

Section 104D(1)(b)

136 In my opinion, the proposals which are the subject of the applications, are consistent with the relevant objectives and policies within the District Plan. It seems to me that a good deal of care has been taken to address all of the relevant matters and the way that effects are proposed to be managed is comprehensive in this respect. In my opinion, the second “gateway” imposed by section 104D is passed.

Section 105 and Section 107

137 I draw the Commissioner’s attention to the analysis of these matters in Section 7.2.4 of the AEE. I agree with the application documents that there is no impediment under ss105 or 107 of the RMA to granting the consents sought.

Part 2

138 Many of the relevant Part 2 issues are directly addressed by the various planning instruments that I have referred to earlier, and I do not wish to repeat that analysis here. That analysis is directly applicable to the ultimate evaluation of Part 2 matters, insofar as this is needed, in light of the most recent determination on *Davidson*.

139 By way of summary, the key matters which stand out to me are:

- (a) The natural character of the drainage channels, the ephemeral and seepage wetlands, minor tributaries affected by the Project have already been modified and in some respects degraded by previous mining activities, and present-day farming activities.³²
- (b) The proposal is not considered to be inappropriate in the location proposed on the basis that it is largely zoned for mining purposes and the surrounding area has already been influenced by existing mining

³² Section 6(a).

activities. The mining activity location is also constrained by the location of the mineral resource.³³

- (c) Discharges to water will continue to accord with existing discharge compliance limits, such that there will be no change to the water quality or life supporting capacity of downstream receiving environments.³⁴
- (d) Some of the indigenous vegetation and habitats affected by the Project have been assessed as having significant attributes. These attributes are recognised and provided for in the proposal through the mitigation and offsetting measures that are proposed. At a district and regional level, these values will be sufficiently protected via the proposal.³⁵
- (e) Ongoing consultation with Takata Whenua is proposed, and there are various mechanisms to further recognise and provide for cultural values being affected by the proposal through a kaitiaki contribution to the offsetting and enhancement plans. The conditions have been drafted to reflect this.³⁶
- (f) The project will avoid areas of heritage significance.³⁷
- (g) The proposal will be managed to ensure any natural hazard risk will not be exacerbated. This is primarily through the incorporation of appropriate factors of safety in the design and management of the mining activity.³⁸
- (h) The proposal is an efficient use and development of the natural and physical resources associated with the wider Macraes mining activities. It utilises existing infrastructure to continue to deliver substantial benefits associated with the existing mining operations.³⁹

³³ Section 6(a).

³⁴ Section 6(a).

³⁵ Section 6(b).

³⁶ Section 7(a) & 7(aa).

³⁷ Section 6(f).

³⁸ Section 6(h).

³⁹ Section 7(b).

- (i) The amenity values have been considered and will be maintained by the imposition of appropriate limits on noise, vibration and dust.⁴⁰
- (j) Rehabilitation is also proposed that will ensure that the intrinsic values of key ecosystems present within the site currently are suitably recognized, and existing activities (i.e. farming) are able to continue post mining closure.⁴¹

Conclusion

140 I have assessed the proposed Deepdell North Stage III mining proposal against the provisions of the relevant planning documents. It is my opinion, having considered the evidence and the conditions proffered by the Applicant, in the context of the relevant planning instruments, that consent can be granted to the subject proposal.

Dated 4th August 2020



John Kyle
Managing Director – Mitchell Daysh Limited

⁴⁰ Section 7(c).

⁴¹ Section 7(c).

APPENDIX A

Summary of Recent Experience of John Kyle

- Fulton Hogan Limited – Resource management planning advice to support a proposal to develop the Royden Quarry – Templeton/Canterbury Region.
- Simcox Construction Limited – Resource management planning advice to consent a quarry facility – Omaka Valley – Marlborough District.
- Oceana Gold – assistance with various consenting projects – McRaes Mine, Waitaki District/Otago Region.
- Oceana Gold – assistance with various consenting projects - Martha Mine, Waihi – Hauraki District/Waikato Region.
- Minister of Transport – evaluation of options for meeting upper North Island port requirements, Auckland.
- Alliance Group Limited – manage renewal process for all discharge and land use consents - Lorneville Meat Processing Works, Lorneville - Southland Region.
- Alliance Group Limited – manage renewal process for all discharge and water takes – Mataura Meat Processing Works, Mataura - Southland Region.
- Alliance Group – advisor regarding various regional and district plans – nationwide.
- Silver Fern Farms - advisor regarding various regional and district plans – nationwide.
- Silver Fern Farms - manage renewal process for all discharge and water takes – Finegand Meat Processing Works, Balclutha – Clutha District/Otago Region.
- Bathurst Resources – manage consent processes associated with expansion of Canterbury Coal mine – Coalgate – Canterbury Region.
- Bathurst Resources – manage consent processes associated with expansion of West Coast mining assets – West Coast Region.
- Kingston Village Limited (Goodman) – manage consent processes associated with establishing a new urban village – Kingston – Queenstown Lakes District.
- Brecon Street Partnership – manage consent processes associated with establishing a new hotel and commercial land uses – Queenstown Lakes District.
- Queenstown Lakes District Council – managed preparation of plan change to expand Queenstown town centre (Plan Change 51), including to accommodate a convention centre – Queenstown Lakes District.
- Wellington International Airport Limited – strategic and resource management advice with respect to a proposed runway extension – Wellington City/Region.
- Wellington International Airport Limited – strategic and resource management advice with respect to the proposal to replace existing coastal defences – Wellington City/Region.
- Homestead Bay – proposed plan change to extend Jacks Point Zone – Homestead Bay – Queenstown Lakes District.
- Ryman Healthcare Limited – resource management advice to establish and operate retirement villages – land use and regional consents – nationwide.

- Wellington International Airport Limited – strategic and resource management advice with respect to proposals to expand the airport land holding in order to enable to the implementation of the airport master plan – Wellington City.
- Environmental Protection Authority – advisor to the Minister appointed Board of Inquiry regarding a Plan Change by Tainui Group Holdings and Chedworth Properties for the Ruakura Inland Port Development, Hamilton.
- Environmental Protection Authority – advisor to the Minister appointed Board of Inquiry regarding a Notice of Requirement and resource consent applications by the New Zealand Transport Agency with respect to the Expressway between Peka Peka and North Otaki on the Kapiti Coast.
- Environmental Protection Authority – advisor to the Minister appointed Board of Inquiry regarding a Notice of Requirement and resource consent applications by the New Zealand Transport Agency with respect to the Expressway between MacKays Crossing and Peka Peka on the Kapiti Coast.
- Environmental Protection Authority – advisor to the Minister appointed Board of Inquiry regarding resource consent applications and designations by the New Zealand Transport Agency with respect to the proposed Transmission Gully Project – Wellington Region.
- Queenstown Airport Corporation – strategic and resource management advice - Notice of Requirement for land adjacent to Queenstown Airport in order provide for the future expansion of airport operations, Queenstown Lakes District.
- Queenstown Airport Corporation – strategic and resource management advice – Wanaka Airport - Queenstown Lakes District.
- Queenstown Airport Corporation – strategic and resource management advice – Plan Changes to expand the noise contours around Queenstown Airport - Queenstown Lakes District.
- TrustPower Limited – resource management planning witness - proposed alteration to the Rakaia Water Conservation Order – Lake Coleridge Hydro Electric Power Scheme – Canterbury Region.
- Meridian Energy Limited – resource management planning witness -Proposed Mokihinui Hydro Electric Power Scheme, damming, water and land use related consents, Buller District and West Coast Region.
- TrustPower Limited – resource management planning witness - Wairau Hydro Electric Power Scheme, water and land use related consents, Marlborough District.
- Sanford Limited, various marine farm proposals Marlborough Sounds, Marlborough District.
- Port Marlborough Limited – Plan Change proposal to alter the marina zone within the Marlborough Sounds Resource Management Plan to provide for consolidation of marina development in Waikawa Bay, Marlborough District.
- Port Marlborough Limited – Resource consent application for occupation of coastal space – Shakespeare Bay port facilities – Marlborough District.
- Meridian Energy Limited – resource management planning witness - proposed Wind Farm, Lammermoor Range, Central Otago District and Otago Region.
- Queenstown Airport Corporation – Runway End Safety Area, designation and construction related consents, Queenstown Lakes District and Otago Region.
- Otago Regional Council – resource management planning witness - consents required for controlling the Shotover River to mitigate flood risk – Queenstown Lakes District and Otago Region.