

NOTIFICATION ASSESSMENT

Appendix 1

LUC-2019-42
LUC-2016-230/B
LUC-2013-225/B
201.2019.1241
201.2016.779.1
201.2013.360.2

Determination under s95A (8) (b) carried out in accordance with Section 95D

Introduction

In summary, the AEE states that the Coronation North extension involves the following activities:

- a. An extension of the existing pit shell by approximately 25.76ha in order to extract approximately 2.8 million tonnes of gold bearing ore. This is called the "Pit Cutback".
- b. An extension of the existing pit shell by approximately 14.12ha in order to remove country rock to maintain stability of the pit wall which would enable the safe extraction of the ore. This is called the "Pit Wall Stability Layback"
- c. Waste rock from the above is proposed to be directed to the following areas:
 - To Area A of the existing Coronation North waste rock stack;
 - To a new Trimbells Waste Rock Stack which includes part of Areas B and C of the existing Coronation North Waste Rock Stack and an additional 17.51ha of land which was not previously authorised to receive waste rock. The proposed new Trimbells waste rock stack is to have a final elevation of RL 675m.
- d. Waste rock from the proposed extension and from the existing consented pits is also proposed to be deposited at the north-western end of the Coronation North Pit, resulting in the partial backfill of the pit. The backfill would rise approximately 30m above the natural ground level on the north-western side of the pit to an elevation of RL 640m;
- e. The remaining parts of Areas B and C of the Coronation North waste rock stack that have yet to receive waste rock is proposed to be relinquished from the existing Coronation North consent. This area is approximately 52.9ha.
- f. The proposed extension area covers a total of 57.39ha, consisting of the pit cutback, pit wall stability layback and additional waste rock stack area described above. The area to be relinquished covers a total land 52.9ha.

Since the application was lodged OGL has been able to reduce the size of the pit wall stability layback footprint to avoid a basalt contact seepage wetland. The removal of the wetland and adjoining area reduces the proposed footprint by 6.5ha which means a total footprint of 50.9ha, a net decrease of disturbed land of 1ha when taking into account the area of land to be relinquished.

The proposed extension also means that the final alignment of Matheson Road needs to be again changed. Instead of the road dipping behind Area C of the Coronation North Waste Rock Stack (at an elevation of RL 655m) the proposed road is now raised to RL 690m as it crosses part of the Trimbells Waste Rock Stack.

Other aspects of mining will remain largely the same except for the relocation of haul roads and topsoil stockpiles at the mine site as required.

The completion date for the Coronation project without the extension is forecasted to be October 2020. The completion date with the proposed extension is expected to add a further four months and increase the total recoverable ore yet to be extracted to an estimated 9.8 million tonnes.

The consent authority needs to decide, in accordance with section 95D of the Resource Management Act (RMA), whether the activities associated with the proposed extension will have or is likely to have adverse effects on the environment that are more than minor. If so, the application needs to be publicly notified.

My overall conclusion is that the application does not need to be publicly notified for the reasons discussed below. In coming to this conclusion I briefly describe the existing environment and examine the actual and potential adverse effects of the proposed extension.

Description of Site

The site is approximately 7 km north-west of the existing processing plant, 30 km inland from Palmerston, and occupying an elevated western "backblock" section of the Taieri Ridge. The existing "Coronation" mining operation is positioned between the elevated Sisters Peaks and Highlay Hill on the Shag River/Taieri River divide and drainage from the site extends into each of these two systems.

The area has already been substantially modified as a result of existing mining with two major pits and waste rock stacks, which were authorised in 2014 and 2016 respectively.

The vegetation communities in the Coronation North Project area have been described as mainly narrow leaved snow tussock grassland, with limited bluff vegetation associated with rock tors and outcrops, and gully slope matrix vegetation.

The environment has been modified through extensive pastoral land use and as a consequence the wider area is classified as 'acutely threatened' which means less than 10% indigenous cover remain.¹ A number of rare species within the proposal area have been recorded.

The majority of the Coronation mine area is situated within the takiwās of Kāti Hūirapa Runaka Ki Puketeraki and Moeraki. Portions of the Coronation Project and the majority of the Coronation North Project fall within the takiwā of Otakou.

The existing mine extends over the boundary between the Waitaki District Council (WDC) and Dunedin City District (DCC). An unformed road, called Matheson Road, use to follow the district boundaries in the vicinity of the mine site but the alignment was amended as a consequence of the mining operation and is proposed to be further amended with this application.

Although the majority of the mining features are based within Dunedin City District, the haul road to the processing is located solely within Waitaki District. In Dunedin District the area covered is zoned "Rural". In the Waitaki District the areas covered predominantly by existing mine activity are either within the "Macraes Mining Zone" or the "Rural Scenic Zone".

¹ Level 4 Land Environment2 N3.1e – for description of land environments see Leathwick JR, Wilson G, Rutledge D, Wardle P, Morgan F, Johnston K, McLeod M, Kirkpatrick R. 2003: Land Environments of New Zealand, Nga Taiao o Aotearoa. David Bateman Ltd, Auckland. 184 p.

Assessment of Actual or Potential Adverse Effects on the Environment for the Purposes of Notification

As discussed in the previous section, and shown in **Figure 1**, the proposal involves extending the pit and reconfiguring the waste rock stacks. The reconfiguring of the waste rock stacks involves reducing the footprint of the Coronation waste rock while at the same time creating a new distinct waste rock stack, called the Trimbells waste rock stack. Overall, the amount of land disturbed from mining would reduce by approximately 1ha.

This assessment and the assessments carried out by Mr Richard Ewans and Mr Luke McKinlay² have treated extension areas and 'give up' areas as an integrated package.

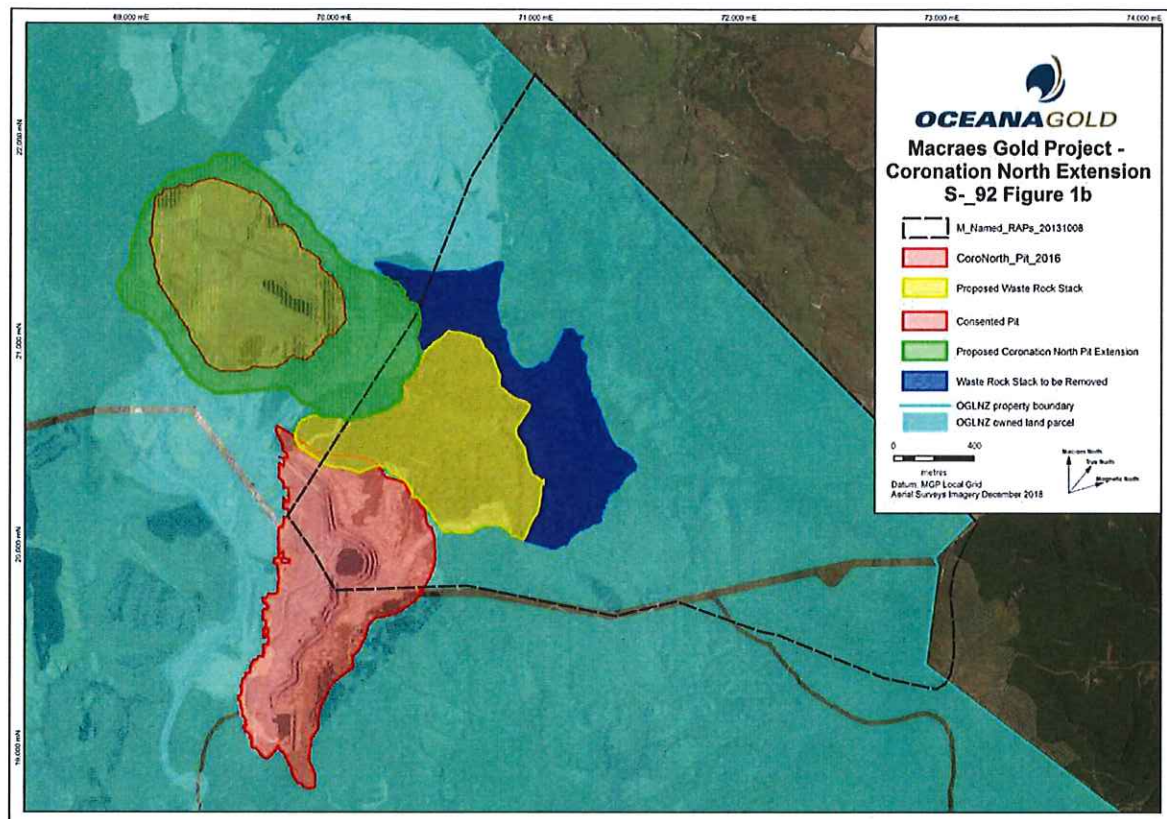


Figure 1: The area coloured green area is the proposed extension to Coronation North pit. The area coloured yellow is the proposed Trimbells waste rock stack that includes some of the previously authorised Coronation North waste rock stack and some additional 'unconsented' land. The area is blue is the also part of the previously authorised Coronation North was rock stack which is proposed to be relinquished and is called the 'give up' area

Adverse Effects on Ecology

Mr Ewans accepts the survey findings performed by ERA Ecology attached with the AEE i.e.

- the land subject to the proposed pit extension supports indigenous vegetation with seven indigenous plant species classified as 'at risk' and one locally uncommon indigenous plant species.
- The unconsented portion of Trimbells waste rock stack also supports indigenous vegetation with one indigenous plant species classified as 'at risk'.

Mr Ewans comments that the site occurs within the Macraes Ecological District and the indigenous vegetation and habitat of indigenous fauna in this ecological district has been

² Dunedin City Council's Biodiversity Advisor and landscape Architect respectively

substantially modified. He notes that the wetland ecosystems are probably New Zealand's most depleted ecosystem and less than 10% of the original wetlands remain nationally.

Mr Ewans also accepts the findings by ERA Ecology that the 'give up' waste rock stack area supports significant indigenous vegetation, with 22 plant species of interest i.e.

- a. Three plant species with 'threatened' status,
- b. Fifteen plant species with 'at risk' status; and
- c. Four plant species locally significant or locally uncommon.

Mr Ewans also confirms that the area is part of a Recommended Area for Protection (RAP) identified in the Macraes Ecological District Protected Natural Areas Programme report; RAP 4 - Trimbells Gully.

Mr Ewans agrees with the assessment of ERA Ecology that the 'swap' of the unconsented area with the 'give up' area results in an overall net gain in biodiversity. This is on the proviso that the existing resource consent conditions remain unchanged. In other words, the avoidance of the 'give up' areas would satisfactorily mitigate for the proposed unconsented areas.

The exception was the small area of basalt contact seepage wetland to be removed under the proposal. Mr Evan's noted the wetland is ecologically significant and no equivalent ecosystem/vegetation type is located in the 'give up' area. As discussed earlier, the applicant is now proposing to reduce the size of the proposed pit extension by 6.5ha, including the removal of the seepage wetland area from the pit footprint.

Therefore I conclude that the adverse ecological effects of the proposal, when considered as a package, is likely to result in a net biodiversity gain and therefore the adverse effects on ecological values are likely to be no more than minor.

Adverse Visual and Landscape Effects

Mr McKinlay discusses the landscape assessment contained in the application³ which concludes that while both the proposed south-east pit cutback and the western pit wall layback will increase the worked area of the pit, the effect of this will be 'balanced' by the proposed backfilling on the north - northwest side of the pit. The assessment finds that placement of the backfill rising up above natural ground level and being placed against the Sisters Peak promontory will have a positive outcome.

Mr McKinlay agrees that the visual and landscape effects of the proposed south-east cutback and western pit wall layback will be no more than minor given the screening of the pit provided by the backfill, as long as this feature is shaped and rehabilitated to integrate with the surrounding landscape.

With respect to the waste rock stack configuration, Mr McKinlay notes that the applicant's assessment finds that the potential waste rock stack related landscape and visual effects will remain much as before, but with lesser landscape effects due to a strip of land being left untouched between what would be the smaller, stand-alone Coronation WRS and the proposed Trimbells WRS.

Mr McKinlay considers that the potential effects of the waste rock stacks and pit back fill areas is largely dependent on successful rehabilitation and shaping of these features. He notes that the proposed Trimbells waste rock stack appears to be in a somewhat more elevated location than the authorised Coronation North waste rock stack and will potentially obscure part of the Taieri Ridge, as viewed from VP12. He therefore concludes it is important

³ WSP/Opus (January 2019) appended to the AEE

that this feature is shaped to visually integrate with the broader surrounding landscape and revegetated to, as closely as possible, replace the pre-existing (prior to mining) land-cover. If this is achieved, he agrees that effects on landscape and visual amenity values will be no more than minor in the context of the consented project.

I therefore conclude that adverse visual and landscape effects should be minor, noting that the mining features are only visible to any significant degree from one stretch of local road used in the main by local farmers. That said, I will be recommending some changes to the conditions in response to the comments made by Mr McKinlay.

Adverse Effects from Noise

By way of background, the assessment of noise from Coronation mine site under the operative Waitaki District Plan has been the subject of debate. While noise limits in the Rural Zones apply to the notional boundary of a residential unit (Critical Zone Standard 4.5.1), the noise limits in the Macraes Mining Zone apply at the zone boundary (Critical Zone Standard 6.5.1).

There was legal debate on whether Critical Zone Standard 6.5.1 applies to the trucking of ore because it would render the application a non-complying activity. The reason for the breach of the limits contained in the rule is because the haul trucks move across the boundary between the Macraes Mining Zone and the Rural Scenic Zone. In the decision to the Coronation North consent, the Commissioners decided:

- a. There was a breach of Rule 6.5.1;
- b. It was considered to be a "minor technical breach" and was considered to be a potentially perverse outcome and not in line with the thrust of the Plan;
- c. That the non-complying aspect of the proposal be unbundled from the other rules in the Plans.

In the Second Generation Dunedin City District Plan (2GP) the night-time noise standard applies at the notional boundary of a dwelling in the Rural Zone and is the same as condition 8.2 i.e. 40 dB $L_{Aeq} (15 \text{ mins})$.⁴

In terms of this assessment, I assume the relevant effect is therefore the effect on the notional boundary at any residence.

Turning to this application, OGL in response to an RFI⁵ has supplied noise levels from previous monitoring of the Coronation mine operation and also two noise assessments reports.⁶ These reports address noise from trucks carting ore along the haul road and noise from the Coronation mine site.

The most significant noise effects have been at Howard's property, located on Horse Flat Road. The reports conclude that:

- a. The night-time noise emissions from up to eight trucks using the haul road over a 15-minute period can reach 49 dB $L_{Aeq} (15 \text{ mins})$; and
- b. Noise from mining operations (excluding use the haul road by trucks) may on infrequent occasions reach up to 42 dB $L_{Aeq} (15 \text{ mins})$ at night due to unusual meteorological conditions or from a one-off use of the haul road for machinery such as bull dozer for example; and

⁴ The noise standards in the Plan are the subject of an Appeal

⁵ The Councils requested further information on the 15th March and received the information on the 5th of April

⁶ Acoustic Engineering Services Reports AC18364 – 02 – R2 9 (dated 5 March) and AC19058 – 01 02 (dated 21 March).

To address night-time noise from the trucks, the AEE states hauling has ceased at night until agreement is reached with the Howards. I consider a new condition can be included to confirm this position in the consent.

On the other hand, noise from mine site operations itself is less likely to have a significant effect at the Howard residence because any elevated noise levels are considered to be an infrequent occurrence in the context of an additional extension of mine life of about four months.

Nevertheless, I anticipate the report writers (Acoustic Engineering Services Ltd) should be confirming whether the noise is representative under section A1.3 of NZS6802.2008 or alternatively detail concrete recommendations to reduce noise below the limits set out in condition 8.2.

Overall I consider the adverse effects from noise emissions on the receiving environment generally are likely to be minor for the following reasons:

- a. The extension project involves an only additional four months to the approximately three year window;
- b. Night time hauling of trucks has ceased and will not commence until agreement with the Howards;
- c. Other night-time mining noise at the Howards residence appears to be well below the limits set out in the condition except on some infrequent occasions and then only just exceeding the night-time limits set out in condition 8.2;
- d. The noise from the mine operations⁷ will also exceed the night-time standard at the former Peddie residence but noting the property is owned by OGL;
- e. Daytime noise from operations otherwise meet the limits set out in condition 8.2 and also the limits set out in the Plans for permitted activities in the Rural Zones.⁸

Notwithstanding the above conclusion, I have taken a conservative approach when identifying potentially affected parties in terms of noise effects because the levels of noise are higher than previously predicted, and has resulted in a breach of condition 8.2. I discuss this further below.

In terms of other effects on amenity (vibration, airblast, lightspill and dust) I agree with the conclusions in the AEE that the extension is unlikely to cause any measurable changes from that experienced for the existing Coronation North mining because:

- a. Mining activities will continue to be conducted in the same geographical location;
- b. No planned increase in mine production rate to the current 5 MT per annum;
- c. No planned additional mining fleet to the existing available equipment;
- d. No additional haul road movements.

As noted above for noise, I also consider the extension project involving only an additional four months to an approximately three year window is an important factor.

Heritage and Archaeology

The AEE (page 36) states that the Coronation North project included a comprehensive review and survey of the footprint and surrounds. Heritage sites, relating to historical mining activities, were

⁷ Stated by the applicant to be the worst case level i.e. all equipment operating

⁸ Accepting the limits in the Operative Waitaki District Plan use an L_{10} rather than a L_{eq} measure (55dBa L_{10})

identified in the lower Trimbells Gully and Mare Burn streams. The AEE states that a review of these findings shows that no heritage sites were found within the footprint of the Coronation North Extension.

I had concluded during the Coronation North consenting-process that the survey and associated report from Origin Consultants appeared to be thorough and identified the various archaeological and heritage sites that may be modified or destroyed as a result of the Coronation project.

The features include various alluvial workings and associated water races that were constructed to sluice the gold and also tramways used to transport ore. The features are relatively common at Macraes although the report states that the relatively good condition and interconnectedness of these features increases their rarity value. The footprint of the Coronation waste rock stack was amended to reduce the impact on these features.

Heritage New Zealand opposed the application initially but indicated its concerns were met subject to an archaeological survey of the footprint of the Coal Creek Reservoir which, I note, is outside the footprint of the proposed extension.

OGL also engaged Mr Allingham to assess any possible remains of Maori origin in the project area. Mr Allingham states that Maori use to travel along the ridge in this area to avoid the rough country occupied by the Shag River valley. He notes that some of the well-defined gullies cut into the underlying schist that, in some places, could have provided shelter for Maori. The shelters with most archaeological potential have been marked by him. Again some changes to the eastern boundary of the proposed waste rock stack were made by OGL to avoid a possible urupa and to avoid a rock shelter.

I have no reason to doubt the conclusions of the AEE, and therefore consider that there are unlikely to be any actual or potential adverse effects on heritage and archaeology from the proposed extension.

Effects on Tangata Whenua

The Kāi Tahu Rūnanga submitted on the Coronation North application and asked for a condition that enabled the Councils to review the conditions after receipt of a Cultural Impact Assessment (CIA) if there is a need to amend or add conditions so as to avoid remedy or mitigate any adverse effects on cultural values and associations. That condition was imposed and the CIA was completed and no conditions were recommended to be changed as a consequence of the CIA. The AEE (page 37) states it is unlikely there will be adverse effects on culturally important landscapes associated with the extension proposal, noting there would not appear to be any archaeological sites impacted by the extension (page 38). On the face-of-it the actual or potential effects on cultural values are likely to be no more than minor but as discussed later the Ngā Rūnanga are identified as affected parties.

Effects on the Roding Network and on Traffic Safety

The AEE did not address any effects on the roading network or on traffic safety presumably because the extension was not thought to have material impacts beyond that of the existing mining operation.

In response to the RFI, OGL has now provided a new map showing a further change to the alignment of Matheson Road (see **Figure 2**). The alignment proposes to cross over the proposed Trimbells waste rock stack and at an elevation of RL 690m, instead of the former elevation of RL 655m.

OGL states that the proposed alignment now allows for views to the north. Overall I consider the re-alignment appears to be minor although some conditions may be needed to ensure the unformed road remains stable.

OGL commissioned a report on traffic effects during the Coronation North as part of the application (prepared by Carriageway Consulting). The conclusions of that report were that the roading network can easily cope with any additional traffic associated with mining activities.

During the Coronation North consenting-process Mr Roy expressed a long-standing concern about the on-going closure of Golden Point, between Horse Flat Road and Golden Point Historic Reserve so it can be used as a haul road. Carriageway Consulting considered that the traffic volumes on this part of the roading network prior to this restriction were extremely low and Horse Flat Road provides a suitable alternative route for any driver (noting that these will likely be limited to people living or working in the immediate area). The Commissioners hearing the Coronation North application accepted this opinion. My understanding is that the road is still closed but OGL will open the road for the public on reasonable request.

I do not consider the additional four months of mining at the same intensity will result in any more than minor impacts on the network, including the on-going closure to Golden Point Road.

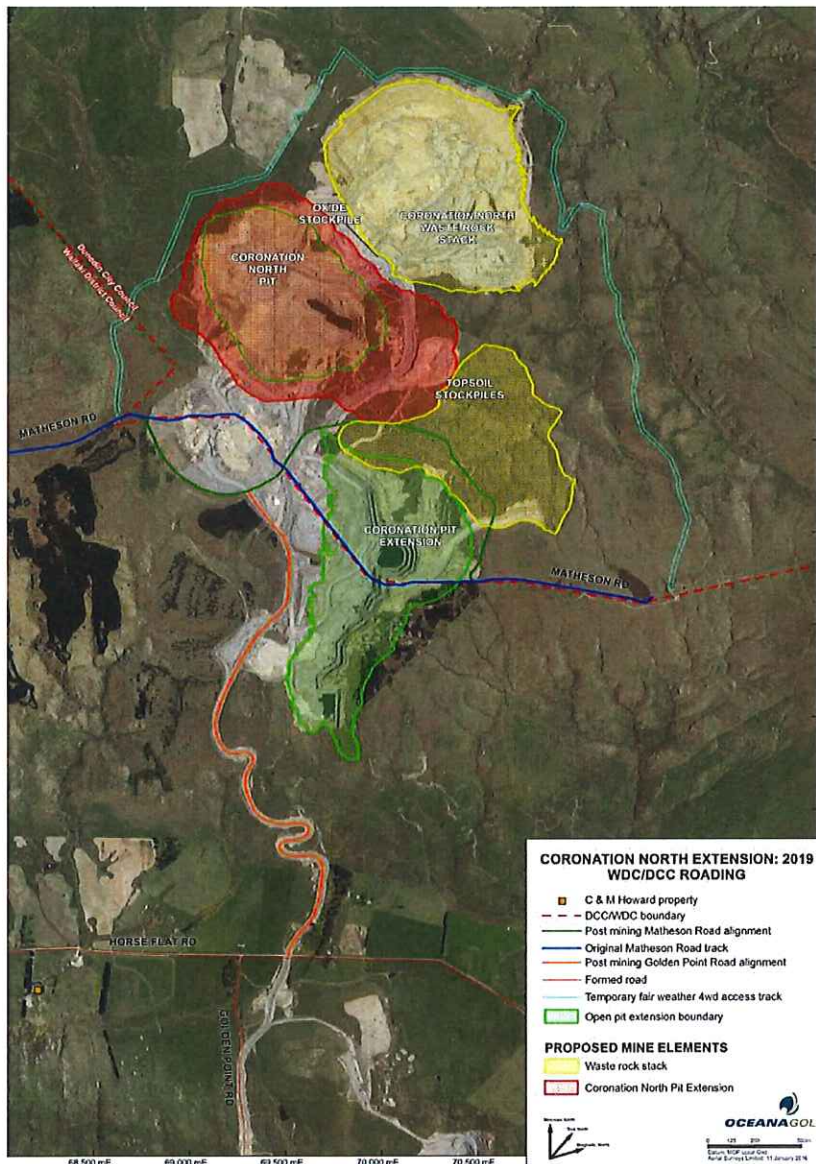


Figure 2: Re-aligned unformed Matheson Road crossing Trimbells Waste Rock Stack shown as a green line

Geotechnical

The main geotechnical issue is the instability of the existing Coronation North pit wall; and, as a consequence, OGL are proposing to cut the pit rim back in paces i.e. the proposed pit stability layback area. Pit wall instability is an issue of worker safety rather than public safety given there will be security fences installed after the completion of mining operations generally (see condition 16). However, I consider there may need to be conditions ensuring the appropriate stability of re-aligned but unformed Matheson Road but this is not a significant matter.

Hazardous Substances

The management of hazardous substances is discussed in Section 6.7 of the AEE and there do not appear to be any material changes to the storage or management of hazardous substances associated with the proposed extension.

Conclusions

Overall, my conclusion for the purposes of public notification is that the adverse effects on the environment are likely to be no more than minor for the following reasons

- a. The proposal is an incremental extension to an existing mining operation;
- b. Mining activities will continue in the same geographic location;
- c. There is no planned increase in intensity of mining with no night-time hauling unless agreement from the Howards;
- d. The extension project involves only an additional four months to an approximately three year window;
- e. For the reasons set out in clauses (a) to (d), the adverse effects on amenity is likely to be no more than minor;
- f. Despite its scale, the mine features are not visually prominent in terms of public viewing and provided conditions are appropriate the extension is likely to result in the same or improved visual and landscape outcomes overall;
- g. Biodiversity outcomes are likely to be positive overall;
- h. Other adverse effects on cultural values, heritage values and the roading network are likely to be minor; and
- i. There are no significant geotechnical issues of concern.

Determination under s95E

There were eleven submitters to the Coronation North mining project authorised in 2016. While I have concluded that the proposed extension to mining project, as a package, is unlikely to have more than minor adverse effects I recommend that the majority of these submitters are deemed affected persons/parties. The submitters involved are as follows and the issues raised are set below:

- 1 Te Rūnanga o Moeraki, Kāti Huirapa ki Puketeraki and Te Rūnanga o Ōtakāou (collectively known as Kāi Tahu)
- 2 C.A. & E.M. Howard
- 3 M & K O'Connell
- 4 DB & Kinney & JW Speight Kinney
- 5 MA & VC O'Neill
- 6 Macraes Community Incorporated ("MCI")
- 7 Mr Neil Roy
- 8 Department of Conservation
- 9 Heritage New Zealand

In summary, the submitters raised the following concerns during the Coronation North consenting-process (the number of the submitter is reference at the end of concern raised):

- i. A condition is required to ensure a Cultural Impact Assessment ("CIA") is completed and a review condition is required so that any cultural impacts can be addressed, if need be;¹
- ii. There is concern about a loss of amenity due to noise and submitters would like to see more consideration from OGL during times when weather conditions make noise from the mine louder;^{2, 3, 4}
- iii. There is a concern about increased traffic on the local roads and especially the school bus route;²
- iv. In response to increased traffic on Horse Flat, Matheson, Longdale and Four Mile roads Councils need to maintain or upgrade roads to an acceptable standard^{5, 6}
- v. Oppose the continuation of roading conditions 13.1 and 13.2 that apply to the existing Coronation consent – this relates to the reinstatement of Golden Point Road between Horse Flat Road 6-months after pit excavations have ceased;⁷
- vi. Question raised about whether the relevant sections of Matheson and Golden Point Road have been stopped or temporarily closed to enable mining or the haul road to occur;⁷
- vii. Some decent rehabilitation is required and back filling of pits;³
- viii. There has been a deteriorating standard of rehabilitation currently happening at the mine site and concern that rehabilitation will not be completed in a timely fashion;⁶
- ix. Gorse and broom has increased on OGL land;⁶
- x. OGL recently constructed a new road which is of poor quality;⁶
- xi. The proposed Coronation project is inconsistent with a large number of ecological-related policies in various statutory documents (the submission lists the objectives and policies);⁸
- xii. The application as currently configured does not meet section 5 (2) (c) of the Act, Section 6 (a) and (c) of the Act or Section 7 (c), (d), (f) and (g) of the Act;⁸
- xiii. Appropriate rehabilitation is required with locally sourced native species so as to provide appropriate habitat for other species;⁸
- xiv. Further information is required on the effects of the proposal on native species and ecosystems i.e. lizards and invertebrates;⁸
- xv. Conditions are required to avoid, remedy or mitigate adverse effects and where this is not possible then appropriate compensation or offsets are used to achieve a no net loss and preferably a net gain in biodiversity;⁸
- xvi. Conditions should be imposed that require mining footprints to be amended to protect high value natural features;⁸
- xvii. Consent should not be granted until appropriate avoidance or mitigation measures are identified and adopted by the application;⁹
- xviii. An accidental discovery protocol be included as a condition;⁹

I note that MCI also an interest in nature conservations matters and associated conditions.

While I have concluded that the effects are likely to be minor I cannot discount that the above parties may hold information that necessitates re-evaluation of the effects or have an interest in seeking new or amended conditions during the decision-making process on the following matters:

- a. Effects from noise;
- b. Effects on landscape and associated rehabilitation;
- c. Effects on nature conservation values; and

d. Change of the Matheson Road Re-alignment.

While the CIA did not recommend any new or amended conditions, the assessment did state that several of the mitigation measures for effects of the Coronation project are still being discussed and the Ngā Rūnanga recommend that the dialogue between Ngā Rūnanga and OGL is maintained so parties work collaboratively to develop appropriate mitigation measures that address effects on cultural values.⁹ Therefore the Ngā Rūnanga are also deemed affected.

I do not consider Heritage New Zealand is deemed an affected party because there is no loss of heritage values associated with the extension, noting Heritage NZ did not pursue any issues at the previous hearing.

As noted earlier, I have taken a conservative approach when identifying potentially affected parties in terms of noise effects. I therefore deem all the submitters from the previous hearing that raised noise as an issue as affected, and also MA & VC O'Neill because of their comparative proximity to the mine site.

Therefore, I conclude that submitters 1 - 8 listed above can be considered to be affected persons/parties. I also recommend that the Council seek confirmation from OGL on whether the "Peddie" residence is being occupied. If so, then I consider that person(s) is an affected party.

I have no information to suggest any other persons would be affected.

⁹ CIA prepared by Kāi Tahu ki Otago Limited, 27 April 2016.