



Hawkeswood Mining Limited

Proposed alluvial gold mine at Millers Flat

Resource Consent Applications – Otago
Regional Council

16 November 2023

1 APPLICANT AND PROPERTY DETAILS

Applicant: Hawkeswood Mining Ltd

Location: Millers Flat

Legal Description: Refer Appendix 1A (Schedule)
Refer Appendix 1B (Titles)

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2 PROPOSAL

The applicant is seeking consent to establish and operate an alluvial gold mine on the subject site, including on-site processing of the gold bearing gravel 'wash' and progressive rehabilitation back to pasture.

The proposed hours of operation are;

- 7 am to 7 pm Monday to Friday
- 7 am to 1 pm on Saturdays
- No earthworks or processing to occur on Sundays or Public Holidays. Some machinery maintenance and dust control activities may occur on Saturday afternoons, Sundays or Public Holidays.

Top soil and overburden will be stripped to create a pit that will typically be up to around 18 m deep. A mine pond within the pit will have an area of approximately 150 m by 100 m (1.5 ha). Including areas being stripped, mined and rehabilitated,

stockpile areas, roading, bunding, workshop and yard, and sediment ponds, the total work area will be approximately 27 ha, at any one time.

The total area affected by mining will be approximately 68 ha over the life of the mine.

The top soil will be stockpiled separately for rehabilitation.

Overburden will be used to create a series of bunds around the perimeter of the site. Any excess overburden will be stockpiled, ready for use in the progressive rehabilitation.

Mining will commence at the northern end of the resource and progress in a generally southerly direction, with the pit traversing from side to side within the resource limits, with rehabilitation (backfilling with tailings, overburden and finally top soil) occurring progressively.

Refer site plan at Appendix 2.

There will typically be around 20 staff employed.

The gold bearing wash rests on the schist basement, which is the economic depth limit to mining. The resource generally gets deeper from north to south.

The floating gold plant, located down in the pit, will process approximately 180 m³ of gold bearing gravel ('wash') per hour (approximately 330 tonnes per hour), by screening and washing the gravel and recovering the gold through gravity separation devices. No chemicals are involved in this gold concentration process, only water.

There will be overburden, comprising gravel and silts, that will be stripped off the top of the gravel sequence using a digger. This will go in trucks to an overburden stockpile, before being backfilled into the mine pit as mining progresses. This is natural, virgin rock, that is completely chemical free, and is not 'waste' or hazardous.

In the pit where the lower gravel sequence is mined, the gravel is dug up and washed and screened. The gold is heavy and is caught in gold saving devices that rely only on water and gravity. The washed gravel, minus the gold is then returned to the mine pit. There are no chemicals involved.

Neither the washed gravel nor the gravel overburden meets the definition of 'hazardous waste' or a 'hazardous substance'.

The principal source of water for the washing of the gold bearing gravel will be groundwater from the pit. Excess water from the pit, which will include settled wash water from the gold plant will be discharged to infiltration pits via a sediment retention pond located between the active mining operation and the Clutha River, where the water will soak into the ground. It will eventually migrate downwards to the groundwater below the infiltration pit.

As outlined in the groundwater assessment report (Appendix 3) a groundwater take of less than around 48 l/s is required to maintain the required groundwater level within the pit, once the initial dewatering has occurred. Some of this groundwater will be used in the gold washing and screening plant, and also for dust suppression. Around 250 litres per second of water will be pumped from the mine pond to the gold plant. This water is returned to the mine pond and is non-consumptive.

The proposal will therefore involve a temporary non-consumptive groundwater abstraction for mine pit dewatering from an alluvial gravel aquifer and discharge (treated) of any excess pond de-watering water and wash plant water to land, where this water may enter groundwater and ultimately surface water.

There is also a retrospective component to this application, for preliminary trial dewatering and discharge for testing purposes that has already been undertaken, as explained in the groundwater report.

There will be no earthworks within 20 m of any watercourse, and no discharge of treated water to land within 50 m of any watercourse, including the Clutha and Tima Burn.

Dust will be controlled on site in accordance with good industry practice, including water carts and/or sprinklers on internal access road and any temporarily exposed earthworks, as necessary, and by vegetating the perimeter bunds. Internal access roads will be regularly maintained to ensure a good coverage of 'metal' (aggregate). The gold processing plant will not generate dust as the process is wet.

The mine life is expected to be around 7 years. Consents are therefore requested for 10 years to allow for contingencies, although it is understood that the maximum term for a groundwater take is 6 years. This consent will therefore need to be renewed prior to the completion of mining.

3 SITE DESCRIPTION

The proposed mine site is located at 1346 – 1536 Teviot Road, Millers Flat. The site topography is relatively level to gently undulating on a terrace above the Clutha River, on the true left bank.

The soil type here is Gibbston 5a 1, Soil Order Brown (NIWA). This soil type was previously known as a yellow grey earth, and is relatively fertile.

The soils here are moisture deficient for 6 months of the year. The average rainfall is around 650 mm per year.

The climate is continental in character, with hot summers, cold winters and relatively low rainfall.

Sunshine hours average about 2000 per year, with around 100 rain days per year. Only around 20% of the rainfall occurs during the winter months of June to August.

Frosts can occur at any time of the year, with a large daily temperature range being typical.

The predominant land use on the site is pastoral farming.

The township of Millers Flat is approximately 2 km to the southeast, while the township of Ettrick is approximately 1.5 km to the northwest.

The Clutha Gold Cycle Trail runs alongside the Clutha River adjacent to the mine site before turning away from the river to Teviot Road. The cycle trail will be temporarily diverted for part of the mining operation.

The proposed mine site is outside the Ettrick Basin Aquifer.

There is an identified HAIL site at 1484 Teviot Road, which is outside the mine footprint area. This is an old landfill and has been investigated as part of this proposal. Refer Appendix 4. An appropriate buffer is proposed.

In terms of the NES Freshwater, there are no wetlands in the mine area or within 100 m.

Natural & Cultural Values

The Regional Plan: Water identifies a range of natural and cultural values, set out in Schedules 1A and 1D.

In respect of natural values, it is noted that the Clutha River between Alexandra and Island Block is a habitat for eel, trout, salmon and waterfowl. It is also a significant habitat for lamprey.

The Tima Burn, which is outside the influence of the proposed mining operation, although in the vicinity, is a significant habitat for koaro.

In respect of cultural values, the Clutha River between Alexandra and Island Block, is significant to Kai Tahu due to its spiritual importance and as a potential food and material source.

4 STATUTORY ASSESSMENT

Consents are required for the construction of a bore (the pit), taking & using groundwater, discharging water and discharge to air.

Diversion of water within the site for drainage is a permitted activity.

Bore Construction 14.1.1

The excavation of the pit to enable mining is classified as the construction of a bore carried out for the purpose of taking groundwater or which results in

groundwater being taken. This is a controlled activity. The matters for assessment are set out at 14.1.1.1.

Take & Use of Groundwater 12.2.4.1 (i)

As the pit is excavated down it will encounter groundwater. This groundwater will be used in the gold plant for washing gravels and then either recycled back to the groundwater in the pit or pumped to an adjoining land infiltration pit. Some water will also be used for dust suppression. This is a discretionary activity.

Discharge of Water 12.C.3.2 & 12.B.4.1

The discharge of water from the mine pit and / or gold plant to a sediment retention pond and infiltration pit is a discretionary activity. Although this is discretionary, the matters for assessment are set out at 12.C.2.4 for restricted discretionary activities are relevant.

Discharge to Air

In accordance with 16.3.5.2 and 16.3.5.3, where the activity involves screening (and stockpiling) of material at a rate less than 200 tonnes per hour in Air Zone 3, the discharge to air is a permitted activity (PA). In this proposal, the gold plant will be wet screening at a rate of up to 330 tonnes per hour (180 m³ of gravel). In accordance with 16.3.5.9, this is a discretionary activity.

Diversion of Water for Drainage

The general drainage of surface water (not a watercourse) for the purpose of draining stormwater around the pit and other working areas is a permitted activity in accordance with 12.3.2.2.

Summary

In summary then, consent is required for the following components of the proposal;

- Bore Construction (pit)
- Take & Use of Groundwater
- Discharge of Water
- Discharge to Air

Resource Management Act

Section 104 of the Resource Management Act (1991) states that the proposal must be assessed in respect of the following matters:

- a) *Any actual and potential effects on the environment of allowing the activity, and*

- ab) *Any measure proposed or agreed to by the applicant for the purpose of ensuring positive effects on the environment to offset or compensate for any adverse effects on the environment that will or may result from allowing the activity; and*
- b) *Any relevant provisions of -*
 - i. *a national environmental standard*
 - ii. *other regulations*
 - iii. *a national policy statement*
 - iv. *a New Zealand coastal policy statement*
 - v. *a regional policy statement or proposed regional policy statement*
 - vi. *a plan or proposed plan; and*
- c) *any other matter the consent authority considers relevant and reasonably necessary to determine the application.*

The proposal must therefore be assessed in terms of actual and potential effects on the environment, the relevant objectives and policies of the relevant regional planning documents, and Part 2 of the Resource Management Act.

Overall this is a discretionary activity.

5 ASSESSMENT OF ENVIRONMENTAL EFFECTS

Groundwater

The detailed assessment of effects is contained in the attached groundwater report (Appendix 3).

The groundwater is contained within an unconfined aquifer above and adjacent to the Clutha River. Current groundwater use from the aquifer includes domestic household, stock water and irrigation use. There are a number of bores surrounding the mine site which may be affected by the groundwater draw down.

The discharge will contain only suspended sediment from the mine pit, which will settle out in the initial sediment retention pond before seeping down through the in situ gravels in an infiltration pond to the water table and then migrating to the Clutha River.

The maximum instantaneous rate of groundwater take will be around 100 l/s. This maximum rate will only occur at the start of dewatering. To maintain the lowered groundwater level in the pit, the annual 'steady state' average will be no more than around 30 - 50 l/s. To be conservative, the groundwater assessment includes a 30% contingency for the purposes of assessing effects.

A number of bores in the surrounding area may be affected by the dewatering. These are listed in Table 6.2 in the groundwater report.

11 domestic water supply wells may experience an interference drawdown, potentially compromising the water supply. There is also 1 potentially affected irrigation bore.

The applicant has obtained affected party sign off from all but 2 of the potentially affected bore owners. Refer Appendix 5.

The applicant has also obtained affected party sign off from all landowners within the mine footprint, apart from CODC. Refer Appendix 6.

Potential effects on watercourses have also been assessed in the groundwater report, and found to be nil to negligible.

Likewise there will be no long term adverse effects on the aquifer.

Discharge

Excess water from the dewatering of the pit, including gold plant wash water, will be discharged to an infiltration pond, via a sediment retention pond. Suspended sediment will settle out in the sediment retention pond and also as the water then passes through the infiltration pond and underlying gravels, before migrating laterally to the Clutha River. The infiltration pond will be located at least 50 m from the Clutha River.

As noted in the groundwater report the available infiltration rate / capacity is greater than the maximum required dewatering rate.

A monitoring programme is proposed to assess total suspended solids (TSS) and turbidity, at the infiltration pond and upstream and downstream of the discharge area. A proposed monitoring condition is included in the draft conditions, in the groundwater report.

It is concluded that with these mitigation methods and monitoring programme, any adverse effects will be no more than minor.

Air

An Air AEE and Dust Management Plan (DMP) has been prepared and included at Appendix 7A and 7B.

The activities on site that may generate dust include;

- Earthworks activities, including stripping and dumping of topsoil & overburden.
- Vehicle movements on unpaved surfaces.
- Wind generated dust from exposed surfaces such as stockpiles and haul roads.
- Rehabilitation back to pasture.

The processing of gold bearing wash through the gold plant will not generate dust because the process is wet. Gold bearing gravels are excavated from below the water level in the mine pond and then run through a screen with spray bars. Screened wet gravel is then returned to the pond while gold bearing fines are transported by water to gold separation devices.

The sources of dust generation are visible and readily identifiable. The dust management plan identifies potential sources of dust and how they will be managed. The mitigation measures proposed include;

- Ceasing dust generating activities in dry conditions when wind speeds exceed 10 m/s and blowing towards sensitive areas.
- Keeping exposed, unvegetated, surfaces to a minimum.
- Limiting stockpile heights to 7 m.
- Applying water or other dust suppressants to potential dust generating areas as necessary to minimise dust emissions.
- Restricting vehicle speeds on site to a maximum of 30 km/hr.
- Regularly maintaining internal access roads to best industry practice, including grading and replenishing the aggregate surface.
- Trucks carrying potentially dusty loads to be dampened down in dry windy conditions.
- Existing shelter belts around the boundary to be retained.

Also, Hawkeswood Mining will have a water truck on site.

In addition there will be a comprehensive dust monitoring programme in place recording for PM 10, including a weather station and dust monitors at the boundary. These dust monitors will be moved as mining progresses through the site. The two real time PM 10 dust monitors will allow for effective and adaptive management of any dust issues.

Neighbouring property owners will be provided with the Site Manager's phone number in the event of any dust nuisance complaints.

It is concluded that with the proposed dust management / mitigation measures and the ongoing monitoring of dust generation, any adverse dust related effects beyond the boundaries of the site will be less than minor.

The DMP has been peer reviewed by specialist air discharge consultants - Air Matters, who have concluded that the proposed controls for avoiding and minimizing adverse dust effects are adequate and consistent with industry best practice. Refer Appendix 8.

6 RELEVANT OBJECTIVES AND POLICIES

6.1 Otago Regional Policy Statement 2019 (amended 15 March 2021)

Objective 1.1

Otago's resources are used sustainably to promote economic, social, and cultural wellbeing for its people and communities.

Policy 1.1.1

Provide for the economic wellbeing of Otago's people and communities by enabling the resilient and sustainable use and development of natural and physical resources.

Policy 1.1.2

Social and cultural wellbeing and health and safety Provide for the social and cultural wellbeing and health and safety of Otago's people and communities when undertaking the subdivision, use, development and protection of natural and physical resources ...

Objective 1.2

Recognise and provide for the integrated management of natural and physical resources to support the wellbeing of people and communities in Otago.

Objective 2.1

The principles of Te Tiriti o Waitangi are taken into account in resource management processes and decisions.

Objective 2.2

Kai Tahu values, interests and customary resources are recognised and provided for.

Objective 3.1

The values (including intrinsic values) of ecosystems and natural resources are recognised and maintained, or enhanced where degraded.

Policy 3.1.6

Manage air quality to achieve the following;

- (a) Maintain good ambient air quality that supports human health, or enhance air quality where it has been degraded;
- (b) Maintain or enhance amenity values.

Policy 3.1.1

Safeguard the life-supporting capacity of fresh water and manage fresh water ...

Objective 3.2

Otago's significant and highly valued natural resources are identified and protected, or enhanced where degraded.

Policy 5.3.4

Recognise the functional needs of mineral exploration, extraction and processing activities to locate where the resource exists.

Policy 5.4.8

Manage adverse effects from the exploration, extraction and processing of mineral and petroleum, etc.

Analysis of Relevant Objectives & Policies

This is a temporary use of the site's natural resources, with the various properties being returned to fully rehabilitated pastoral farmland at the completion of mining, and the proposed mitigation measures ensuring that any adverse environmental effects will be no more than minor.

The proposed mine will promote the economic and social wellbeing of the local community, and overall is consistent with the relevant objectives and policies.

The particular attributes valued by Iwi will not be adversely affected by this proposal, as the only direct interaction with the Clutha River will be via the discharge of treated groundwater, with a monitoring programme to be implemented.

The gold recovery process is 'wet' and the only potential discharge to air will be dust associated with earthworks and vehicles travelling over internal roads. Such potential dust discharges will be managed in accordance with the DMP.

6.2 Proposed Regional Policy Statement 2021

The PRPS 2021 was notified in June 2021. No decisions have been made on submissions and therefore the PRPS can be afforded limited weight at this time.

Nevertheless, the environmental outcomes sought by the PRPS are consistent with those of the operative RPS and so this application is also generally consistent with the PRPS.

Significant resource management issue 10 (SRMR-I10) recognizes the economic benefits of mining:

Agriculture, fishing and minerals extraction support employment and economic well-being but also change landscapes and habitats.

Objective LF-WAI-O1 – Te Mana o te Wai

The mauri of Otago's water bodies and their health and well-being is protected, and restored where it is degraded, and the management of land and water recognises and reflects that:

(1) water is the foundation and source of all life – na te wai ko te hauora o ngā mea katoa,

(2) there is an integral kinship relationship between water and Kāi Tahu whānui, and this relationship endures through time, connecting past, present and future,

(3) each water body has a unique whakapapa and characteristics,

(4) water and land have a connectedness that supports and perpetuates life, and

(5) Kāi Tahu exercise rakatirataka, manaakitaka and their kaitiakitaka duty of care and attention over wai and all the life it supports.

Objective LF–FW–O8 – Fresh water

In Otago’s water bodies and their catchments:

(1) the health of the wai supports the health of the people and thriving mahika kai,

(2) water flow is continuous throughout the whole system,

(3) the interconnection of fresh water (including groundwater) and coastal waters is recognised,

(4) native fish can migrate easily and as naturally as possible and taoka species and their habitats are protected, and

(5) the significant and outstanding values of Otago’s outstanding water bodies are identified and protected.

Policy LF–LS–P21 – Land use and fresh water

Achieve the improvement or maintenance of fresh water quantity or quality to meet environmental outcomes set for Freshwater Management Units and/or rohe by:

(1) reducing direct and indirect discharges of contaminants to water from the use and development of land, and

(2) managing land uses that may have adverse effects on the flow of water in surface water bodies or the recharge of groundwater.

AIR O1 Ambient Air Quality

Ambient air quality provides for the health and well-being of the people of Otago, amenity and mana whenua values, and the life supporting capacity ecosystems.

AIR O2 Discharges to Air

Human health, amenity and mana whenua values and the life-supporting capacity of ecosystems are protected from the adverse effects of discharges to air.

AIR P1 Maintain Good Ambient Air Quality

Good ambient air quality is maintained across Otago by;

- (1) Ensuring discharges to air comply with ambient air quality limits where those limits have been set, and
- (2) Where limits have not been set, only allowing discharges to air if the adverse effects on ambient air quality are no more than minor.

AIR P3 Providing for Discharges To Air

Allow discharges to air provided they do not adversely affect human health, amenity and mana whenua values and the life supporting capacity of ecosystems.

AIR P4 Avoiding Certain Discharges

Avoid discharges to air that cause offensive, objectionable, noxious or dangerous effects.

AIR P5 Managing Certain Discharges

Manage the effects of discharges to air beyond the boundary of the property of origin from activities that include but are not limited to:

- (1) Outdoor burning of organic material
- (2) Agrichemical and fertilizer spraying
- (3) Farming activities
- (4) Activities that produce dust, and
- (5) Industrial and trade activities.

AIR P6 Impacts On Mana Whenua Values

Avoid discharges to air that adversely affect mana whenua values by having particular regard to values and areas of significance to mana whenua.

Analysis of Relevant Objectives & Policies

This is a temporary use of the site's natural resources, with the various properties being returned to fully rehabilitated pastoral farmland at the completion of mining, and the proposed mitigation measures ensuring that any adverse environmental effects will be no more than minor.

The proposed mine will promote the economic and social wellbeing of the local community, and overall is consistent with the relevant objectives and policies.

The gold recovery process is 'wet' and the only potential discharge to air will be dust associated with earthworks and vehicles travelling over internal roads. Such potential dust discharges will be managed in accordance with the DMP.

The particular attributes valued by Iwi will not be adversely affected by this proposal, as the only direct interaction with the Clutha River will be via the discharge of treated groundwater, with a monitoring programme to be implemented.

6.3 Regional Plan: Water

Groundwater

Objective 9.3.1

To sustain the recognised uses of Otago's groundwater.

Objective 9.3.3

To maintain the quality of Otago's groundwater.

Objective 9.3.5

To avoid degradation of soils arising from the inappropriate application of poor quality groundwater.

Policy 9.4.1

In managing any activity involving the taking of groundwater or the discharge of contaminants, to ensure that the suitability of aquifers to support the recognised uses of groundwater identified in Schedule 3 is maintained.

Policy 9.4.2

In managing the taking of water from any groundwater aquifer, to give priority to avoiding, in preference to remedying or mitigating irreversible or long term degradation of soils arising from use of the water for irrigation.

Policy 9.4.14

To require appropriate siting, construction and operation of new groundwater bores, to prevent:

- Contaminants from entering an aquifer; and
- The contamination of groundwater in any aquifer from the groundwater in another aquifer; and to promote such management for existing bores.

Policy 5.4.2 also highlights the obligation to consider cultural and spiritual values, particularly in respect of Kai Tahu.

Schedules 1A and 1D refer to natural and cultural values associated with the Clutha River between Alexandra and Island Block. These values include

freshwater habitats, food and material sources, and spiritual values of particular importance to Kai Tahu.

Analysis of Relevant Objectives & Policies

This is a temporary use of the site's natural resources, with the various properties being returned to fully rehabilitated pastoral farmland at the completion of mining, and the proposed mitigation measures ensuring that any adverse environmental effects will be no more than minor.

The proposed mine will promote the economic and social wellbeing of the local community, and overall is consistent with the relevant objectives and policies.

The particular attributes valued by Iwi will not be adversely affected by this proposal, as the only direct interaction with the Clutha River will be via the discharge of treated groundwater, with a monitoring programme to be implemented.

6.4 Regional Plan Air

Objectives & Policies

Objective 6.1.1

To maintain ambient air quality in parts of Otago that have high air quality and enhance ambient air quality in places where it has been degraded.

Objective 6.1.2

To avoid adverse localised effects of contaminant discharges into air on:

- a. Human health;
- b. Cultural, heritage and amenity values;
- c. Ecosystems and the plants and animals within them; and
- d. The life-supporting capacity of air.

Objective 6.1.3

To allow for the sustainable use of Otago's air resource.

Policy 7.1.1

To recognise and provide for the relationship Kai Tahu have with the air resource through procedures that enable Kai Tahu to participate in management of the air resource.

Policy 8.1.1

To have regard to the Otago Goal Levels identified in Schedule 1 and comply with the Resource Management (National Environmental Standards Relating to

Certain Air Pollutants, Dioxins and other Toxins) Regulations 2004 in managing the region's ambient air resource.

Policy 8.1.2

To manage ambient air quality by airsheds and air zones.

Policy 8.2.3

In the consideration of any application to discharge contaminants into air, Council will have:

(a) Particular regard to avoiding adverse effects including cumulative effects on:

- i. Values of significance to Kai Tahu;
- ii. The health and functioning of ecosystems, plants and animals;
- iii. Cultural, heritage and amenity values;
- iv. Human health; and
- v. Ambient air quality of any airshed; and

(b) Regard to any existing discharge from the site, into air, and its effects.

Policy 8.2.8

To avoid discharges to air being noxious, dangerous, offensive or objectionable on the surrounding local environment.

Policy 10.1.1

The Otago Regional Council will encourage:

- a. People undertaking land use activities to adopt management practices to avoid, remedy or mitigate any adverse effects of dust beyond the boundary of the property; and

Analysis of Relevant Objectives & Policies

This is a temporary use of the site's natural resources, with the various properties being returned to fully rehabilitated pastoral farmland at the completion of mining, and the proposed mitigation measures ensuring that any adverse environmental effects will be no more than minor.

The gold recovery process is 'wet' and the only potential discharge to air will be dust associated with earthworks, stockpiles and vehicles travelling over internal roads. Such potential dust discharges will be managed in accordance with the DMP.

The proposed mine will promote the economic and social wellbeing of the local community, and overall is consistent with the relevant objectives and policies.

6.5 NPS Freshwater Management – Objectives & Policies

2.1 Objective

(1) The objective of this National Policy Statement is to ensure that natural and physical resources are managed in a way that prioritises:

- (a) first, the health and well-being of water bodies and freshwater ecosystems
- (b) second, the health needs of people (such as drinking water)
- (c) third, the ability of people and communities to provide for their social, economic, and cultural well-being, now and in the future.

2.2 Policies

Policy 1: Freshwater is managed in a way that gives effect to Te Mana o te Wai.

Policy 2: Tangata whenua are actively involved in freshwater management (including decision making processes), and Māori freshwater values are identified and provided for.

Policy 3: Freshwater is managed in an integrated way that considers the effects of the use and development of land on a whole-of-catchment basis, including the effects on receiving environments.

Policy 4: Freshwater is managed as part of New Zealand's integrated response to climate change.

Policy 5: Freshwater is managed through a National Objectives Framework to ensure that the health and well-being of degraded water bodies and freshwater ecosystems is improved, and the health and well-being of all other water bodies and freshwater ecosystems is maintained and (if communities choose) improved.

Policy 6: There is no further loss of extent of natural inland wetlands, their values are protected, and their restoration is promoted.

Policy 7: The loss of river extent and values is avoided to the extent practicable.

Policy 8: The significant values of outstanding water bodies are protected.

Policy 9: The habitats of indigenous freshwater species are protected.

Policy 10: The habitat of trout and salmon is protected, insofar as this is consistent with Policy 9.

Policy 11: Freshwater is allocated and used efficiently, all existing over-allocation is phased out, and future over-allocation is avoided.

Policy 12: The national target (as set out in Appendix 3) for water quality improvement is achieved.

Policy 13: The condition of water bodies and freshwater ecosystems is systematically monitored over time, and action is taken where freshwater is degraded, and to reverse deteriorating trends.

Policy 14: Information (including monitoring data) about the state of water bodies and freshwater ecosystems, and the challenges to their health and well-being, is regularly reported on and published.

Policy 15: Communities are enabled to provide for their social, economic, and cultural well-being in a way that is consistent with this National Policy Statement.

Analysis of Relevant Objectives & Policies

Given that the proposed diversions and discharges will have a less than minor effect on the receiving environment, in respect of both hydrology and ecology, it is considered that the proposal is consistent with the above objectives and policies.

6.6 Resource Management (Measurement and Reporting of Water Takes) Regulations

While the activity (water take) is considered to be technically non consumptive, the activity will nevertheless fully comply with the regulations, as there will be full metering and reporting of all water taken. This is as per the recommended conditions of consents provided in the groundwater report.

6.7 Kai Tahu ki Otago Natural Resource Management Plan

At 5.6.4, Policies 16, 17 and 19 are particularly relevant in respect of mining and earthworks.

Policy 16 seeks to discourage mining in highly visible areas and within landscapes of cultural significance.

Policy 17 seeks to ensure that any mining proposal includes appropriate mitigation to minimise adverse effects.

Policy 19 relates to earthworks generally and seeks to avoid adverse effects on significant landforms, indigenous vegetation, and soils, and to provide appropriate mitigation.

10.3.2 Wāhi Tapu Issues in the Clutha/Mata-au Catchments

- Historic and continuing loss of wāhi tapu sites of significance within the Clutha/Mata-au Catchment from:
 - the creation of the hydro schemes
 - the on-going management of hydro schemes

- mining activities
- land use intensification

- Inappropriate use of wāhi tapu information.
- Discovery of Pounamu Artefacts.

The proposal is consistent with these policies because the particular attributes valued by Iwi will not be adversely affected by this proposal, as the only direct interaction with the Clutha River will be via the discharge of treated groundwater, with a monitoring programme to be implemented.

Any adverse discharges to air are being adequately mitigated.

7 CONSULTATION

Consultation with potentially affected bore owners has been undertaken. Sign off has been received from all but 2 of the potentially affected bore owners, and from all landowners within the mine footprint apart from CODC.

The Kai Tahu Ki Otago Natural Resource Management Plan 2005 sets out Iwi considerations in respect of mining activities. The mining operation has been designed to avoid any known features that may have significant cultural values, by proposing setbacks from the Tima Burn and Clutha River, adequately treating any discharges that may enter the Clutha River via groundwater infiltration alongside the river, and implementing a regular water quality monitoring programme.

Consultation with Iwi (including with Aukaha) has commenced and is ongoing.

8 CONCLUSION

In summary there will be significant economic and social benefits for the local community, while any adverse environmental effects are being appropriately managed. The application is also consistent with the provisions of the relevant Regional planning documents, the NES Freshwater, relevant regulations and the Kai Tahu Natural Resource Management Plan.

As there are no adverse environmental effects that are more than minor associated with this proposal, and the proposal is not contrary to the relevant objectives and policies, it is concluded that consent should be granted.

MacDonell Consulting Ltd
Planning Consultants