Hawkeswood Mining Limited

Combined Decision

Otago Regional Council
Central Otago District Council

23 August 2024

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Appendix A – Appearances

1.0 Introduction

1.1 Appointments

[01] We, Louise Taylor (Chair), Craig Welsh and Rosalind Day-Cleavin, acting under delegated authority from the Otago Regional Council (ORC) and Central Otago District Council (CODC) have been jointly appointed to hear and decide the resource consent applications lodged by Hawkeswood Mining Limited (HML) (applicant) to establish and operate an alluvial gold mining operation at 1346-1536 Teviot Road, Millers Flat, Roxburgh.

1.2 Decision format

[02] This combined Decision report contains our decisions on the consents sought from both councils. In section 3 we deal with the CODC consents and in section 4 we deal with the ORC consents. In the remainder of this section (section 1) we address background matters that are relevant to a greater or lesser degree for both councils, followed by process matters (section 2).

1.3 Description of the proposal

[03] The applications were described in the applicant's AEE[1], the two Section 42A Reports[2] and the evidence of Anita Collieand Barry MacDonell.[3] We adopt those descriptions and some of the more salient points as described in Mr Brabant's legal submissions for the applicant[4] are:

- Removal of stockpiling of overburden;
- Stage mine pit excavation;
- On-site processing of gold bearing wash utilising water and gravity separation methods;
- Replacement of tailings and overburden in the mine pit; and
- Progressing rehabilitation of the Site.

[04] Technical features of the proposal include:

- The principal water source for washing gold-bearing gravels is groundwater extracted from the mine pit.
- The water take is predominantly non-consumptive, with water taken during initial dewatering treated in a discharge settlement pond before being returned to land overlaying the aquifer and soaking back into groundwater.
- The extraction, screening and gold recovered process will be undertaken without the use of chemicals.
- The processing of alluvium through the gold recovery plant is undertaken as a wet process, thus the likelihood of that activity generating particular emission is very low.
- There will be no earthworks within 20m of any watercourse, and no discharge of treated water to land within 50m of any watercourse, including the Clutha River/ Mata-au and Tima Burn.

[05] The application includes retrospective consents for earthworks, the taking of groundwater for constructing a bore, pit dewatering, and associated discharges to land.

[06] The applicant has sought a 10-year consent duration for all activities except for the proposed water take where a 6-year term is sought.

[07] Proposed works are expected to be undertaken in four stages. We include a site plan below which conveys the progression of the mining activity through the site, including Stage 1 – Stage 4[5].

[1] Application for Resource Consent to the Central Otago District Council for Hawkeswood Mining Ltd, 25 October 2023, Town Planning Group (NZ) Limited

[2] RC230325 Section 42A Report, Olivia Stirling, 15 April 2024; RM23.819 Section 42A Report, Danielle Ter Huurne, 11 April 2024

[3] Planning evidence of Anita Collie, 29 April 2024; Planning Evidence of Barry MacDonell, 2 May 2024

[4] Legal Submissions on behalf of Hawkeswood Mining Limited, 8 May 2024, paras 8 and 9

[5] Supplementary applicant evidence, Master Plan Set, 24/06/2024

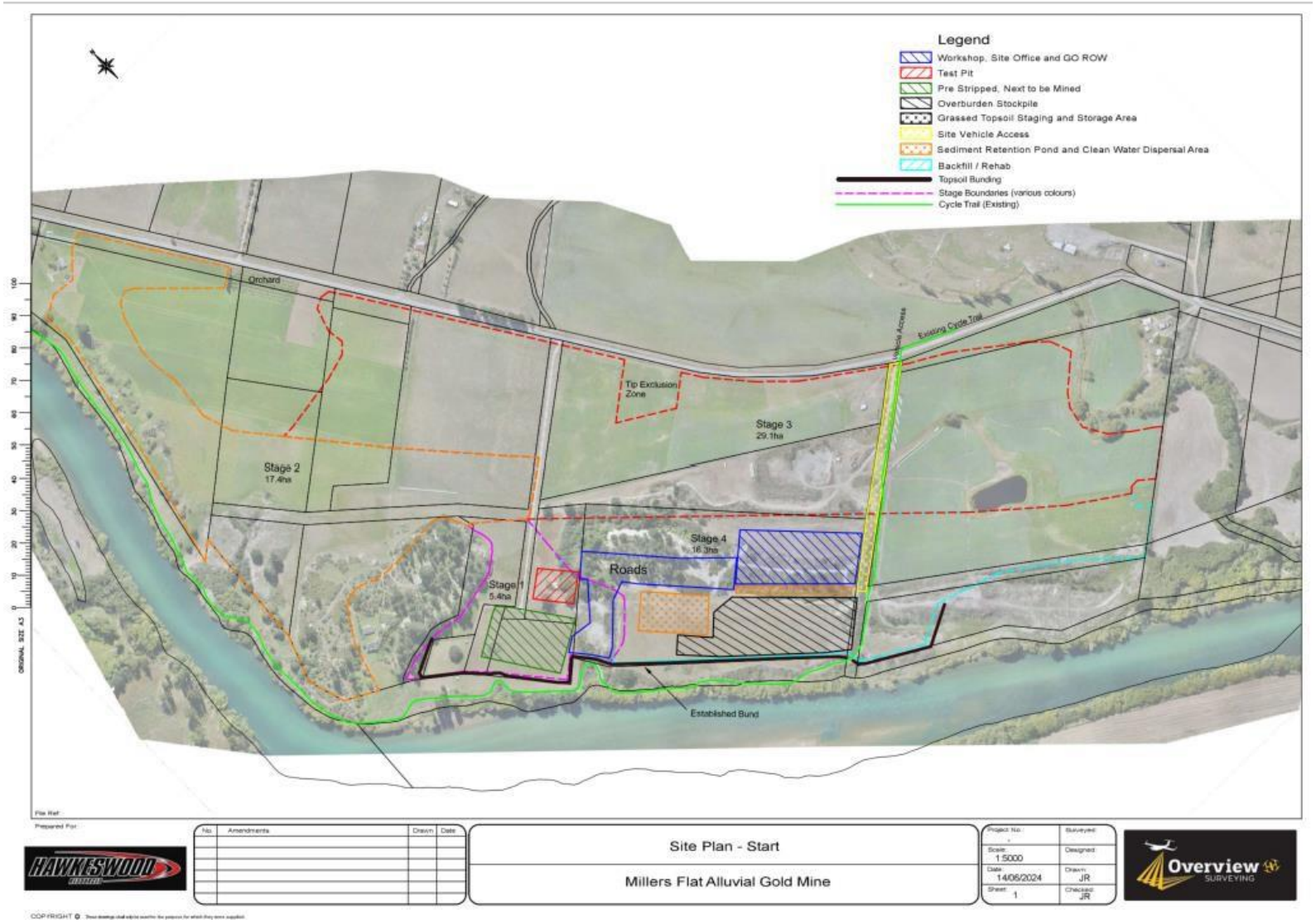

Figure 1 Site Plan (Source: Master Plan Set, 24/06/2024]

[08] Further details of the proposal (including as amended by the applicant prior to and during the hearing) are set out in the effects assessment sections of this Decision.

2.0 Process matters

2.1 Written approvals and notification

[09] By the close of the hearing, written approvals were provided with the land use applications to CODC from 26 parties, including those landowners / occupiers within the subject site (i.e. the mine footprint) and surrounding landowners. An updated written approval plan was provided by Ms Collie as part of her supplementary evidence[6] dated 25 June 2024 (Appendix A).

[10] By the close of the hearing, 17 written approvals were obtained and submitted to the ORC application[7].

[11] We are mindful that we are unable to consider adverse effects on parties who have provided written approval.

[12] The applications to both councils were publicly notified with the period for submissions closing on 19 February 2024.

2.2 Submissions received

[13] The ORC received 10 submissions by the close of the submission period – 4 in support, 5 in opposition and one neutral. One submission was withdrawn on 26 February 2024, and another was withdrawn in May 2024. The submissions were summarised in the ORC Section 42A Report[8] and we adopt that summary without repeating it here.

[14] The CODC received 416 submissions by the close of the submission period, and an additional 55 late submissions[9] were received after the close of the submission period. Three submissions were withdrawn prior to the hearing. In total, 468 submissions were received – 457 in support, 8 in opposition, 3 neutral, and one unspecified. The submissions to CODC were summarised in the CODC Section 42A Report.[10] We adopt that summary without repeating it here. One submission was subsequently withdrawn in May 2024.

[15] We were provided with full copies of all of the submissions. We record that we have read and had regard to all the submissions that were lodged, regardless of whether or not the submitter appeared before us at the hearing.

[16] Some submitters raised concerns about the impact of the proposal on private property prices and commercial ventures, and in one case included a request which was confidential.[11] As set out in various Court decisions (and in accordance with the decision-making framework which guides our assessment of the proposal) the direct effects of an activity on the environment are the primary consideration for our decision. Any indirect effect on property prices or suchlike are not relevant matters we can consider in our Decision. We have carefully and thoroughly considered the direct environmental effects of the proposal, including on people and communities, throughout this Decision.

[6] Anita Collie Supplementary Statement, 25 June 2024, Appendix A

[7] Anita Collie Supplementary Statement, 25 June 2024, Appendix B

[8] Section 42A ORC Staff Recommending Report RM23.819

[9] The Panel have delegated authority from the CODC to consider late submissions and we resolved on 19 March 2024 via Minute 1 that they should be accepted

[10] Section 42A CODC Staff Recommending Report RC230325

[11] Submitters including Graeme Young [#166], W Gunn (#471)

2.3 Site visit

[17] We visited the area surrounding the site on the afternoon of Monday 13 May 2024 prior to commencement of the hearing. We also visited the proposed mine site on Wednesday afternoon when we adjourned the hearing.

[18] These site visits enabled us to gain a better understanding of the existing environment, the scale of the proposed mine including the works already undertaken, and the issues before us.

[19] During the Monday visit we walked the Clutha Gold trail and drove along Teviot Road to take note of the location of nearby residents, the proposed site access locations, and the power line network between the site and Teviot Road. We viewed submitters' properties and the location of the Millers Flat School and the Millers Flat Water Company (MFWC) bore and treatment plant immediately downstream of the Millers Flat Bridge.

[20] On Wednesday afternoon we visited the proposed mine site and met Stephanie Matheson who works for HML but was not a party to the proceedings. Ms Matheson showed us around the site for health and safety reasons and to show us key features on the site. We were careful to avoid discussing the proposal with her. We saw the flooded mine pit with the floating gold processing plant, heavy machinery to be used for mining and haulage, buildings on site (primarily portacoms) and took note of the existing tailings areas (historic mining). We also studied the mine pit bench and batter system that had been constructed as well as the perimeter bunds. Ms Matheson guided us to a high point on the site so that we could view the surrounding properties.

[21] Ms Matheson drove us to the south east side of the Tima Burn stream and we (without Ms Matheson) walked along the fenced riparian margin for several hundred metres. We saw the crack willow referred to in evidence, and observed the stream bed, water flow and exiting riparian vegetation. The riparian margin was relatively easy to access and the topography was relatively flat.

2.4 Hearing

[22] We conducted a hearing at the Millers Flat Hall in Millers Flat from Tuesday 14 May – Thursday 16 May 2024.

[23] We heard from a number of submitters, as listed in Appendix A. Copies of the evidence and legal submissions that were presented are held by the respective councils. We do not summarise that material here, but we refer to it in the remainder of this Decision where appropriate. We took our own notes of any verbal answers to questions that we posed.

[24] We adjourned the hearing on Thursday 16 May 2024 pending receipt of further information that was circulated all parties for comment, and the applicant's written closing or Reply submissions which we received on 24 July 2024. We closed the hearing on Friday 2 August 2024 having concluded that we required no further information from any of the participants and that we had sufficient information to enable us to make a decision.

2.5 Precautionary approach

[25] The precautionary principle, or precautionary approach, is an international law environmental principle. There is no universal 'definition' of the precautionary principle. We understand it is most commonly understood to mean "*uncertainty does not justify inaction*". Although the Resource Management Act (RMA or 'the Act') does not expressly mention the precautionary principle, we understand that the Courts have consistently recognised that a precautionary approach is inherent in the Act's provisions.

[26] We note that in this case, while the parties were in general agreement that the effects of the proposal were known and certain, the applicant proposed to adopt a precautionary approach with regard to providing flow augmentation in the Tima Burn in the event there was any reduction in flows from the mining pit dewatering activities. The evidence provided to us indicates any reduction in flows is a very low probability, however, the applicant was prepared to be cautious on this matter in response to Kā Rūnaka concerns. We accept that approach.

3.0 CODC consents

[27] The application to CODC seeks land use consent for:

(a) The colour and finish of buildings
(b) Screening of storage areas and stockpiles
(c) To enable more than 3 persons to operate an industrial / commercial activity
(d) Earthworks
(e) Construction of tracks
(f) On-site diesel storage
(g) Unsealed road accesses

3.1 Central Otago District Plan

[28] We were informed that the subject site area is located within the Rural Resource Area within the Central Otago District Council jurisdiction.

[29] In her s42 Report, Ms Stirling considered that the activity is 'temporary' in accordance with the District Plan definition, noting that the definition includes *"activities undertaken pursuant to a prospecting or exploration permit in terms of the Crown Minerals Act 1991"*. [12] On this basis she concluded that resource consent is not required for the storage of diesel.

[30] Ms Collie disagreed with Ms Stirling's interpretation and explained to us that because mining requires a mining permit under the Crown Minerals Act (as distinct from a prospecting or exploration permit), mining does not meet the District Plan definition of a 'temporary activity'. She remained of the view that resource consent is required for diesel storage. We accept Ms Collie's interpretation and note that Ms Stirling, in her s42A Reply Report, reconsidered her position and now agrees with Ms Collie.[13]

[31] In her s42A Report (and based on the findings of a Report[14] supplied by the Applicant) Ms Stirling was not of the view that resource consent was required under the National Environmental Standards for Assessing and Managing Contaminants in Soil to Protect Human Health (NESCS).[15] Conversely, Ms Collie advised that while a preliminary site investigation (PSI) was undertaken for the stockyards (confirming that contamination is at or below background concentrations), the absence of a detailed site investigation (DSI) meant the stockyards cannot be excluded under clause 5(9) of the regulation. On this basis, Ms Collie considered that there remains a technical requirement for resource consent pursuant to clause 11 of the NESCS.[16] Ms Stirling, in her s42A Reply Report, accepted Ms Collie's evidence and agreed that consent is required as a discretionary activity under clause 11 of the NESCS. [17]

[32] By the close of the Hearing, it was common ground that resource consent is required for the following:

[12] s42A Report by Olivia Stirling dated 15 April 2024, paras 37-39
[13] Supplementary s42A Report, Olivia Stirling, 17 July 2024, para 8
[14] Sampling Summary Report, 1485 and 1534 Teviot Road, EC Otago, dated 12 February 2024
[15] s42A Report of Ms Stirling, dated 15 April 2024, paras 40-43
[16] Evidence of Anita Collie dated 29 April 2024, para 26
[17] Supplementary s42A Report, Olivia Stirling, 17 July 2024, para 9

a. A restricted discretionary activity pursuant to Rule 4.7.3(iii) for breaching the colour and finish requirements for buildings.

b. A restricted discretionary activity under Rule 4.7.3(i) for non-compliance with Standard 4.7.6F which requires storage areas and stockpiles to be screened from all public viewpoints and neighbouring properties.

c. A discretionary activity pursuant to Rule 4.7.4(i) for more than three persons being involved in an activity of industrial or commercial in nature, resulting in a breach to Standard 7 4.7.6B(b)(i).

d. A discretionary activity pursuant to Rule 4.7.4(i) as the proposed earthworks do not comply with the earthworks quantities as stipulated in Standard 4.7.6J(b) being a maximum of 2000m^3 and 3000m^3 per site.

e. A restricted discretionary activity under Rule 4.7.3(vi) for the construction of tracks that don't comply with Rule 4.7.6J.

f. A restricted discretionary activity pursuant to Rule 12.7.1 (iii) as the existing accesses to Teviot Road are not sealed.

g. Consent for a discretionary activity under Rule 4.7.4(ii) as the proposal will involve 60,000 litres of on-site diesel storage, which exceeds the permitted volume of 10,000 litres of a class 3c substance in the Rural Resource Area, as listed in Schedule 19.14.

h. Consent for a discretionary activity under Clause 11 of the NESCS.

[33] Having considered the s42 Report and all evidence presented to us at the Hearing, we find the proposal requires resource consent as a discretionary activity under the Central Otago District Plan.

3.2 Effects assessment

3.2.1 Permitted baseline

3.2.1.1 Central Otago District Plan

[34] When forming an opinion for the purposes of section 104(1)(a) of the RMA we may disregard an adverse effect of an activity on the environment if a national environmental standard or a plan permits an activity with that effect.[18]

[35] The applicant initially stated that the District Plan standards provide a useful comparison as to the nature and scale of activity that could be carried out on the site. These standards related to noise (Rule 7.7.6E), buildings and structures up to 10 metres in height (Standard 4.7.6A) colour and finishing requirements (Standard 4.7.6D), storage areas including contractors' yards and temporary stockpiles (Standard 4.7.6F), earthworks for access tracks (Standard 4.7.6J(a)) and earthworks for extraction and displacement activities (Standard 4.7.6J(b)).

[36] Ms Stirling, in her s42A Report, disagreed and explained the effects-based nature of the CODP where specific activities are not generally identified as being permitted or requiring resource consent, rather performance standards are utilised to define an acceptable level of potential environmental effects.[19] She noted that while the applicant had demonstrated the proposal complies with the noise standards and bulk, location and design standards for structures and building, the establishment and operation of the proposed gold mine does not comply with a number of other performance standards including earthworks, hazardous

[18] Section 104(2) of the RMA.
[19] s42A Report, Olivia Stirling, 15 April 2024 para 58

substances, traffic generation, storage and access. She concluded that the CODP does not provide for a reasonable comparison of adverse effects which can conceivably be drawn upon and therefore that there is no helpful permitted baseline to be applied to the application.[20]

[37] In her evidence Ms Collie pursued the permitted baseline in respect of noise only and considered that the noise limits specified in Rule 4.7.6E do inform a relevant and permitted baseline as they apply in respect of all activities in the rural environment, not solely to earthworks.[21]

[38] Having considered the above matters, we prefer the evidence of Ms Stirling and find there is no useful permitted baseline under the CODC Plan. Accordingly, we elect not to disregard any effects of the proposal activity under s104(2) of the RMA, noting that we do not consider the applicability or otherwise of the permitted baseline as being a determinative matter in this case.

3.2.2 Visual amenity and landscape character

[39] Effects on landscape character and visual amenity were matters of contention between the parties, with several opposing submitters raising landscape and visual amenity concerns.[22] From our understanding of the proposal and the landscape in question, the key landscape considerations for maintaining and enhancing landscape values relate to:

- Effects on views and visual amenity from Teviot Road, SH 8, Clutha Gold Trail and neighbouring properties;
- Effects on landscape character, including the effects on openness, naturalness and rural amenity across the various stages of the activity; and
- The duration of activity and associated 'temporary' effects.

[40] In her s42A Report, relying on the landscape evidence of Ms McKenzie, Ms Stirling initially stated there was insufficient evidence to demonstrate that the applicant's proposed mitigation measures would be successful and concluded that the proposal will result in an unacceptable level of visual and landscape effects.[23]

[41] In response to Panel questions during the hearing, the applicant agreed that further information was required to assist us in our examination of the proposal and its effects on visual amenity and landscape character. Following the hearing at the Panel's direction, an 'Information Package' was provided by the applicant which contained:

a. revised/updated site plans;
b. revised/updated management plans;
c. details of proposed Tima Burn enhancement area;
d. revised proposed conditions of consent; and
e. supporting supplementary statements from HML's expert witnesses.

[42] The Information Package was subsequently reviewed by Ms McKenzie, who agreed with Mr Moore's supplementary evidence, and concluded that overall the applicant's proposed conditions will ensure landscape effects are adequately managed through site management, rehabilitation, ecological enhancement, mitigation measures, staging, and appropriate placement of visible elements for the duration of the mining activity. She considered that the updated plan set and conditions provide assurance that the adverse effects on views and visual amenity will be adequately mitigated. She particularly noted that an appropriate bund extension had been provided for stage two in the updated plans, and that the proposed enhancement plan will have a positive effect on the natural character and visual amenity relating to the stretch of the Tima Burn from Teviot Road.[24]

[20] s42A Report, Olivia Stirling, 15 April 2024 para 59
[21] Evidence of Anita Collie, 29 April 2024, para 40
[22] Submitters for example Kāti Huirapa Rūnaka ki Puketeraki, Te Rūnanga o Ōtākou and Hokonui Rūnanga; JP Clarke & KL Franklin and FG Works Limited (subsequently withdrawn)
[23] s42A Report, Olivia Stirling dated 15 April 2024, paras 72-73
[24] Supplementary evidence Jess McKenzie, dated 9 July 2024

[43] By the close of the Hearing, Ms Stirling confirmed that, subject to conditions of consent, there was sufficient evidence to be satisfied that the proposal will not inappropriately impact visual amenity and landscape values. We agree, and further note that in her supplementary evidence Ms Collie supplied an updated written approval map demonstrating support of the proposal from a large number of residents, including from the closest dwellings to the site.[25] The applicant has also secured the written approval of the Clutha Gold Cycle Trust.

Finding

[44] We find there is consensus between the landscape architects and planners on the likely degree of landscape character effects and visual amenity effects. We accept that subject to conditions landscape and visual amenity effects will be adequately managed, and do not weigh against a grant of consent.

3.2.3 Noise

[45] A number of submitters raised concern about the potential noise impact of the proposal. [26] Submitters were concerned with the duration of the activity during weekdays and at the weekend in an environment that is in their experience presently tranquil. Concerns were also raised that noise will impact on those who live in the area and those who experience the Clutha Gold cycle trail.

[46] The noise impacts of the proposal were traversed in some detail at the Hearing with submitters and noise specialists. Mr Hegley's view is that any potential noise effects from this project will be of limited duration and certainly not long-term exposure and concluded that the noise effects will be less than minor.[27] Mr Exeter accepted that the noise from the site will be similar in level and character to activities that are anticipated by the permitted standards, however, considered the larger scale and duration of the activity to be significantly greater than for a permitted activity. On this basis, Mr Exeter recommended an Operational Noise Management Plan (ONMP) and noise monitoring at the closest notional boundary to manage noise related effects as raised by submitters.[28]

[47] Following the Hearing, Mr Hegley provided a draft ONMP which sets out the operational procedures to ensure compliance with the requirements of the conditions of consent and to minimise any adverse effects of noise for the residential neighbours in accordance with the requirements of section 16 of the Resource Management Act.[29] We note that the draft ONMP sets out six recommended noise monitoring points around the site which may be reviewed prior to setting up any monitoring station to verify in the field that the sites selected are representative of the most exposed locations and will fairly represent the noise received by the neighbours. Furthermore, we note and accept Mr Hegley's evidence that the use of a monitoring device at Ms Gunn's property at 1581 Teviot Road is unlikely to provide any meaningful results.[30] We are satisfied that the ONMP as proposed will ensure compliance with the conditions of consent.

[48] Mr Exeter reviewed the draft ONMP and agreed that the proposed conditions would provide appropriate control of the mining noise for all adjacent residents, subject to including an additional condition to ensure that the use of dewatering pumps on site does not generate unreasonable noise effects.[31] He explained that the conditions proposed by the applicant would enable the dewatering pumps to generate noise that is clearly audible outside of dwellings in the evenings (and potentially during the day on Saturdays and Sundays when there is no other activity on the site). In his view, the noise would be audible as a constant

[25] Supplementary Statement of Evidence, Anita Collie, 25 June 2024, Appendix B
[26] Submitters including W Gunn (#471), the Ministry of Education (#165), Mr Young (#166), and JP Clarke, KL Franklin and FG Works Limited (subsequently withdrawn), J & N Barrett (#163)
[27] Evidence of Nevil Hegley, 29 April 2024, Para 69
[28] Styles Group Memorandum, Jamie Exeter, 15 April 2024, pages 5-6
[29] s16 of the RMA requires the occupier of land to adopt the best practicable option to ensure that the emission of noise from that land does not exceed a reasonable level
[30] Statement of Evidence, Nevil Hegley, 29 April 2024, paras 53-55
[31] Supplementary Statement of Evidence, Jamie Exeter, 15 July 2024, section 4.0

hum that may mask natural sounds in the environment and cause considerable annoyance for residents in outdoor living areas. Ms Stirling, relying on Mr Exeter's evidence, considered a condition restricting the dewatering pump noise level to 25 dBA L10 should be imposed.[32]

[49] In Reply, Ms Collie disagreed with Ms Stirling's recommendation to include such a condition. In her view the proposed condition is unreasonably onerous, especially given the noise experts agree that predicted noise levels will be at a level that is well less than the permitted nighttime noise standards in the District Plan and that dewatering pumps would be inaudible inside dwellings and would not cause sleep disturbances for residents.[33] Although there is evidence to suggest the noise from dewatering pumps may be potentially audible outside nearby dwellings for a period of up to six months, she considered this level of effect to be acceptable in the context of the relevant statutory provisions. Further, Ms Collie noted that a large number of written approvals have been provided, including from the closest dwellings to the site and that the effects on these parties are to be disregarded.

[50] Having considered the technical and evaluative evidence on this matter, we are satisfied that a condition restricting the dewatering pump noise level to 25 dBA L10 is not required.

Finding

[51] We find there is a sufficient degree of consensus between the noise experts on the likely degree of noise effects. We accept that, subject to conditions, noise effects will be adequately managed, and do not weigh against a grant of consent.

3.2.4 Vibration

[52] Both Ms Stirling and Ms Collie agree that vibration effects will be appropriately managed. We agree, and note that note that in its supplementary evidence, the applicant provided an 'Operational Noise Management Plan' which includes a suite of conditions to manage vibration generated on the site.

[53] The submission by JP Clarke, KL Franklin and FG Works Limited raised concerns relating to the level of vibration effects resulting from the proposal during construction of the bunds and when the closest mining-based activities are undertaken, particularly given the proximity of their property at 1334 Teviot Road to the proposed works. They also questioned the assumed distances in the vibration assessments provided by Hegley Acoustics Consultants as part of the application. We note that the submission from JP Clarke, KL Franklin and FG Works Limited was withdrawn and the property at 1334 Teviot Road is now owned by HML, and their written approval received.

[54] For completeness however we record here that Mr Exeter noted that while the assumed distances in the Hegley vibration assessment were inconsistent with the applicant's updated site plans, overall, he agreed with the conclusion of the applicant, that the guideline values of the referenced Standard DIN 4150–3 to avoid cosmetic building damage can be readily complied with during the proposed construction and operational activities.[34] Mr Exeter further commented that any perceptible vibration at 1344 Teviot Road would be just noticeable and would only occur when heavy plant is operated in the nearest area of the Site, assuming no vibratory compaction will be required.

Finding

[55] On the basis of the evidence, and subject to conditions of consent, we are satisfied that any adverse vibration effects arising from the proposal will be appropriately managed so as to be less than minor.

[32] Supplementary s42A Report, 17 July 2024, Olivia Stirling, paras 28-29
[33] Right of Reply Statement, Anita Collie, 23 July 2024, Paras 10-13
[34] Updated Acoustic Peer Review, Styles Group, 15 April 2024

3.2.5 Light spill

[56] As noted in Ms Stirling's s42A Report, the applicant has confirmed that lights will be located away from dwellings and roads, and that the hours of operation are limited, thus reducing nighttime light spill. We note that the applicant has proposed consent conditions to control the degree of light spill and that require a suitably qualified person to measure and verify compliance with the specified light spill limit prior to the commencement of mining. We are satisfied that these conditions will appropriately mitigate the effects of lighting.

[57] At the close of the Hearing, Ms Stirling remained of the view that proposed condition 10 should include a limitation of machinery maintenance work to the operational hours. Ms Collie did not accept that this limitation was required because the application was made on the basis that machinery maintenance would be undertaken outside of core operational hours. We are prepared to accept Ms Collie's evidence in this regard and note that we did not receive any evidence to the contrary. The significant number of written approvals from surrounding neighbours is also relevant to our consideration of this issue.

[58] Submitter JP Clarke, KL Franklin and FG Works Limited raised a concern that the effect of flood lighting on both amenity / ambience and on the dark sky natural character have not been adequately assessed in the application. They also raised concerns that activities should be limited to (official) daylight times only, not exceeding 12 hours in any one workday and not exceeding 5 hours on Saturday morning, with one weekend every month to be completely work-free. We note that the submission from JP Clarke, KL Franklin and FG Works Limited was withdrawn, and the property at 1334 Teviot Road is now owned by HML, and their written approval received.

Finding

[59] We find that subject to conditions of consent, that the effect of the light spill within the receiving environment will be appropriate and will not compromise the rural character and amenity values of the area.

3.2.6 Dust

[60] Section 4.2.8 of this Decision addresses dust effects of the proposal. We adopt that assessment for the purposes of the CODC consent and find that any adverse effects of dust arriving from the proposal will be minor.

3.2.7 Rural Character / Rural Amenity Values

[61] Effects of the proposal on rural amenity values was a key area of concern for opposing submitters residing in the area. As summarised in Ms Stirling's s42A Report, submitters' main concerns were that the proposal would:

- Compromise the open-space and natural character amenity values currently experienced in the environment;
- Result in an unacceptable level of adverse effects arising from noise and compromise the quietness of the receiving environment;
- Compromise the rural amenity values associated with dwellings within close proximity of the activity;
- Result in dust emissions which will have a significant impact on the ability to collect potable water from rainwater and undertake other domestic activities;
- Result in a significant loss of the amenity values of the Clutha Gold cycle trail and remove local and visiting public access to the adjoining stretch of the Clutha/Mata-au River.

[62] Initially, Ms Stirling concluded in her s42A Report that the proposal would result in an inappropriate degree of change to the rural environment.[35] However, having considered the evidence and supplementary

[35] s42A Report, Olivia Stirling, 15 April 2024, para 111

evidence provided by the applicant, Ms Stirling confirmed in her Supplementary s42A Report that in her view there is now sufficient evidence to be satisfied that this proposal will not inappropriately impact rural amenity values, subject to conditions of consent.

[63] We note that we agree with the approach taken by Ms Collie where her assessment of effects on rural character is informed by various effect components, including visual amenity and landscape character, noise, dust and vibration.[36] Given our previous findings relating to these component assessment areas, we are satisfied that overall, subject to conditions, any effects on rural character are acceptable. However, we do provide the following comments in response to submitters we heard from at the Hearing, supplementary evidence received from the applicant, Ms Stirling's s42A Reply Report, and Ms Collie's Reply Evidence.

[64] We heard from submitters Graeme and Christine Young[37] at the Hearing who expressed a concern that the proposal would negatively impact on rural amenity, with a resulting negative impact on the tourism industry. Mr Young provided examples where tenants of commercial leases in Queenstown, and associated staff from the United Kingdom and Canada, had expressed dismay at the proposed location of the mine. Mr Young suggested that if the mine went ahead this would be a negative experience for tourists and *"would stop people coming here".* We note here that we are unable to assign much if any weight to evidence that is anecdotal or 'hearsay' in nature.

[65] We also heard from submitter Wendy Gunn and her partner Cally Johnstone who own and operate 'The Quince Boutique Bed and Breakfast' at Millers Flat. Ms Gunn advised that the proposed mine site is located approximately 400m from their property and that they were extremely concerned that the proposed mine was not in a suitable location when considered against the tranquillity of the existing receiving environment. Their key concern related to the noise impact of the proposed mine on their existing and future customers and the impact this may have on their business. We acknowledge the concerns expressed by Ms Gunn and Ms Johnstone in their submission and at the Hearing. However, having carefully considered the expert and evaluative evidence presented to us on this matter, as discussed in Section 3.2.3, we are satisfied that, subject to the ONMP and associated conditions, noise effects will be appropriately managed.

[66] Notably, many residents (including from the closest dwellings to the site) provided their written approval, and the applicant has also secured the written approval of the Clutha Gold Cycle Trust. We have also considered the proposed rehabilitation of the site to pasture in this matter.

Finding

[67] We find that subject to conditions of consent, the proposed activities will be appropriate and will not compromise the rural character and amenity values of the area.

3.2.8 Earthworks

[68] The submission of Kā Rūnaka states that the development of a detailed closure and site rehabilitation plan, secured by a bond, should be a pre-requisite for mining of the proposed scale, and that there also needs to be certainty over the timing of the rehabilitation stages and outcomes.

[69] Following the Hearing we received a number of draft management plans to demonstrate how the applicant intended to manage the effects of earthworks and remediation as a result of the mining activity onsite, including a draft Rehabilitation and Enhancement Management Plan (REMP), a draft Topsoil Management Plan and a draft Erosion and Sediment Control Plan. Revised bond conditions are proposed which include more detailed provisions, and which provide security (in the event of any default by the consent holder) for the rehabilitation of the site to pasture, decommissioning / mine site closure, and the Tima Burn Enhancement Planting Project (EEP).

[36] Evidence of Anita Collie, 29 April 2024, paras 67-71
[37] Submitter [166] Graeme Young

[70] Ms Stirling reviewed the draft management plans and conditions and confirmed that subject to conditions requiring the certification of these management plans, and effective implementation by the applicant, that the effects as a result of earthworks on site can be appropriately mitigated.[38] We agree, and in reaching this view note that Mr Vial (on behalf of Kā Rūnaka) and Dr Murchison (on behalf of Te Rūnanga o Ngāi Tahu) reviewed the suite of draft management plans and conditions and were satisfied the applicant had largely addressed their concerns.[39]

[71] Ms Collie in her Reply did not accept Ms Stirling's proposal to restrict the earthworks volume by way of condition.[40] In her view, the scope of the activity can be defined by area, spatial extent and depth limitations. We agree with Ms Collie that a volume restriction is not required and consider the conditions we have included in the decision provide sufficient clarity to define the envelope of earthworks activity.

[72] We note that the runoff effects from earthworks are also addressed by the proposed perimeter bunding and buffers between mining and surface water bodies. In addition, we considered the requirement for progressive rehabilitation of the site and for the mine to operate under a certified Erosion and Sediment Control Plan address any sediment runoff issues from earthworks.

Finding

[73] We find that, subject to conditions of consents, any adverse effects as a result of earthworks including erosion and sediment runoff onsite can be appropriately mitigated.

3.2.9 Hazardous substances

[74] A known historic landfill is located on the northern boundary of the site.

[75] Mr Vial in his evidence raised concerns about the effects on water quality from mining in close proximity to the landfill on the site. In particular he advised that the potential for contaminants from the landfill to be mobilised in groundwater was of concern for Kāi Tahu ki Otago. He noted there is no water quality monitoring proposed for heavy metals, organochlorine pesticides and polycyclic aromatic hydrocarbons between the landfill and the Clutha River/Mata-au.

[76] The Applicant engaged EC Otago to assist with defining the boundaries of the historic landfill. Their report[41] outlined sampling and analysis that was undertaken to determine the appropriate buffer around the landfill to avoid any disturbance of contaminated soil during mining. The boundary established was shown to be unaffected by the HAIL activity with contaminant levels at or below background concentrations. This landfill buffer zone was not challenged by any party. We accept that the buffer around the landfill zone is appropriate to avoid disturbance of contaminated soil.

[77] However, as a precautionary measure, in light of the concerns raised by Mr Vial we have included a requirement to monitor and report on water quality via sampling from a water quality monitoring network. The samples will need to be compared to the NZ Drinking Water Standard Maximum Acceptable Value or Guideline. Results will need to be reported to the consent authority and follow up action initiated in the event that the drinking water standards are exceeded or if there is an increase in contaminants levels (where any determinant exceeded the relevant NZDWS value prior to the commencement of the consent).

[78] On 5 April 2024, the applicant provided a report titled, *Sampling Summary Report - 1484 and 1534 Teviot Road completed by EC Otago, and dated 12 February 2024*. This report detailed the results of soil sampling and analysis of the area of land within 1484 Teviot Road which presently contains a farm shed and stock yards, and the area of land within 1534 Teviot Road which formerly contained a set of stockyards in the 1970s.

[38] s42A Report, Olivia Stirling, 15 April 2024, para 36
[39] Aukaha Memorandum, Tim Vial, 10 July 2024
[40] Supplementary evidence statement of Olivia Stirling, 17 July 2024, Appendix 1 - Recommended Draft Condition # 7
[41] *Preliminary Site Investigation 1484 Teviot Road Millers Flat for Hawkeswood Civil Limited* June 2022

[79] Mr Keogh referred to the findings of this report in his supplementary statement.[42] According to Mr Keogh all contaminant concentrations reported on the subject site were found to be well below the applicable human and environmental health guidelines, and the site soils are highly unlikely to present a risk to human or environmental health. He concluded that the proposal will not result in any adverse land contamination effects which require mitigation through the imposition of conditions of consent. This evidence was not challenged and we accept it.

[80] Up to 60,000 litres of diesel is proposed to be kept onsite and stored in a containment facility adhering to the Health and Safety at Work (Hazardous Substances) Regulations 2017. The diesel storage area will be located near the workshop, and outside of flood prone areas and areas of excavation. This facility includes a double-skinned tank accompanied by a secondary containment (bunded) area of appropriate size.[43]

[81] Ms Stirling stated[44] that subject to conditions of consent, that effects on human health, health and safety and potential contamination as a result of the fuel storage are no more than minor and appropriate.

[82] We note that MFWC was of the same opinion.[45] They stated that whilst the risks to the MFWC water bore from hazardous substances were small, the CODC should include a condition in the landuse consent requiring HML to adopt appropriate practices for the storage and use of hazardous substances and reference the appropriate management standards. We have included conditions agreed between the Applicant and the Council Officers to address this matter.

[83] We have also included a condition to address accidental spillage of fuel or any other contaminants. This includes a notification process to Council and MFWC.[46] We consider this addresses any issues arising from use of hazardous substances on site.

Finding

[84] On the basis of the discussion above, and subject to the conditions of consent, we consider that any adverse effects associated with hazardous substances will be avoided, remedied or mitigated to the extent that they are minor.

3.2.10 Transport effects

[85] We received evidence regarding transport effects from Mr Copland for the Applicant, and Ms Stirling who received advice from CODC Environmental Engineer Dominic Haanen. All parties considered that the roading network could cater for the proposed traffic movements and that the proposed southern and northern entrance could be designed to ensure no safety issues arose.

[86] The engineering requirements recommended by the experts with respect to the entrances have been included as conditions of consent.

Finding

[87] Subject to the conditions of consent, we consider that any adverse transport effects will be appropriately addressed.

[42] Paragraph 5 and 6
[43] CODC s42A Report, paragraph 33 and 137
[44] S42A Report, paragraph
[45] Millers Flat Water Company submission, paragraph 10
[46] MFWC raised this as a mitigation measure in their submission

3.2.11 Servicing

[88] CODC's Environmental Engineer[47] assessed the proposed service arrangements (water supply, wastewater collection and disposal, and stormwater disposal).

[89] The Applicant proposed the use of two portaloos onsite, and stated that wastewater will be removed from site by a contractor weekly. Mr Haanen considered there was low risk of wastewater effects provided an appropriate wastewater management plan could be provided. We have included a wastewater management plan condition to address this.

[90] In terms of stormwater, Mr Haanen considered that stormwater from impermeable surfaces and buildings could be appropriately managed onsite.[48]

[91] The Applicant has secured water supply (for domestic purposes on site) from MFWC and no issues were raised by Mr Haanen or Ms Stirling with regard to this arrangement.

[92] The submission from MFWC identified their pipeline infrastructure is located in the northern paper road and is located within the proposed mining area. This pipeline and the water connections are shown on the Master Plan set (Water Force Plan dated 12.06.24) supplied in the further information bundle lodged in June 2024. At the hearing Mr Dons[49] stated:

> "*The Company also requests a resource condition to ensure continuous supply and prior consultation before alteration or relocation of the pipeline. The CODC s42A report recommends a condition (#46) to protect our pipeline and we support the inclusion of this condition particularly given the responsibilities placed on us by the WSA [Water Services Agreement]*".

[93] These requirements have been included in the conditions of consent.

[94] The Fire and Emergency Services submission considered the risk of fire represented a potential adverse effect of low probability but high potential impact. They requested that prior to the commencement of mining operations, including the erection of any buildings, that sufficient water volume, pressure and flows in accordance with the New Zealand Fire Service Firefighting Water Supplies Code of Practice SNZ PAS 4509:2008 are provided. They also requested that the Consent Holder prepare in consultation with Fire and Emergency New Zealand, a Site Emergency Management Plan (SEMP). We have included these requirements as conditions of consent.

Finding

[95] Subject to the conditions of consent discussed above, we consider that any adverse servicing effects will be appropriately addressed.

3.2.12 Ecology and biodiversity

[96] We heard from Dr Wills at the hearing who assessed indigenous flora on the site. His evidence was that vegetation on the site consists of monocultures with indigenous biodiversity virtually completely lacking, and only existing to a minor degree on historical dredge tailings.[50] We accept Dr Wills' evidence, noting we received no evidence to the contrary. We also accept and agree with Dr Wills' supplementary evidence where he states that with reference to the REMP, recommended consent conditions will be appropriate to manage onsite terrestrial (botanical and soils) ecology effects. We are satisfied that implementation of the

[47] Email dated Thursday, 28 March 2024
[48] CODC s42A Report, paragraph 151
[49] Chairman, MFWC
[50] Evidence of Barrie Wills, 29 April 2024, para 29

REMP and compliance with consent conditions will ensure the subject land is returned to the quality to that which was present prior to the mining activities, which will be in the form of productive pastoral land.

[97] The submission of Kā Rūnaka noted that the Kāi Tahu Ki Otago Natural Resource Management Plan 2005 (NRMP) requires a proposal to promote the retention, enhancement and reinstatement of indigenous ecosystems within the District. In response to Kā Rūnaka concerns, Ms Collie recommended that a consent condition be imposed to require the consent holder to provide a rehabilitation plan which addressed (amongst other things) methods for ecological enhancement in a non-agricultural location near to the site and that this draft rehabilitation plan be provided to Kā Rūnaka for feedback.[51]

[98] During the Hearing we heard from Mike Moore (landscape architect), Barrie Wills (terrestrial ecologist), Simon Johnstone (Operations Manager) and Anita Collie (planner) about the opportunity and practicalities relating to the provision of indigenous vegetation enhancement planting along the adjacent Clutha River / Mata-au marginal strip and/or the Tima Burn. In response to Panel questions, it became evident that the applicant prematurely assumed enhancement planting could occur around the Clutha / Mata-au River margin and advised that the applicant was actively looking at locations within its control and whether these locations could offer benefit for enhancement, including the Tima Burn. Given the apparent constraint to the applicant's ability to achieve the enhancement outcomes promoted, we asked the applicant to reconsider options for advancing the proposed ecological enhancements in consultation with Kā Rūnaka and Council officers. The proposed EEP is discussed in the s104(1)(b) section of our decision.

[99] Mr Vial on behalf of Kā Rūnaka and Dr Murchison on behalf of Te Rūnanga o Ngāi Tahu reviewed and provided feedback on the management plans and conditions provided by the applicant. They confirmed the applicant had largely addressed their feedback, with any remaining issues of concern addressed through requested amendments to the conditions of consent, as discussed below in Section 3.2.13.

[100] Ms Stirling confirmed that due to the evidence and supplementary evidence provided, including the REMP, she considered the proposal can avoid significant adverse effects on fauna, and that appropriate mitigation planting is proposed to improve the local flora environment.[52]

[101] The submission of JP Clarke, KL Franklin and FG Works Limited[53] states that skinks are regularly observed on their property, located at 1334 Teviot Road, which is adjacent to the north of the site. The submitter also queried why no assessment of biodiversity had been provided with the application in accordance with the requirements of the NPS-IB. We note that the submission from JP Clarke, KL Franklin and FG Works Limited was withdrawn, and the property at 1334 Teviot Road is now owned by HML, and their written approval received. However for completeness we note that in terms of lizard habitat, Simon Chapman advised that while some lizard habitat is present on-site, it is only present in small areas where very specific conditions occur. He did not consider the Project's adverse effects on indigenous lizards constituted a significant effect for the purposes of the consenting process because the site does not provide significant habitat for indigenous herpetofauna.[54] We accept Mr Chapman's evidence and further note his supplementary evidence where he stated that the draft REMP will benefit indigenous lizards through the planting of native species and plant and animal pest control within the Tima Burn as proposed. [55]

Finding

[102] We find that subject to conditions, any effects on ecology and biodiversity will be adequately managed, and do not weigh against a grant of consent.

[51] Statement of evidence of Anita Collie, 29 April 2024, para 126
[52] Supplementary evidence statement of Olivia Stirling, 17 July 2024, paras 40-41
[53] Submission of JP Clarke, KL Franklin and FG Works Limited (#172) subsequently withdrawn
[54] Evidence of Simon Chapman, 29 April 2024, para 29
[55] Supplementary statement of evidence, Simon Chapman, 25 June 2024, para 6

3.2.13 Cultural and heritage

[103] As summarised in Ms Stirling's s42A Report, the application site is located within the Mata-au (Clutha) catchment, adjoining the Mata-au, the Tima Burn, Oven Hill Creek, and an unnamed tributary to the north of the site. The margins of these waterbodies form part of a significant cultural landscape for Kāi Tahu, and the Mata-au is a Statutory Acknowledgement Area under the Ngāi Tahu Claims Settlement Act 1998. The site is also located between two known Māori archaeological sites recorded by the New Zealand Archaeological Association, G44/12 midden/oven which adjoins the mine site to the north-east, and G43/2 a surface scattering of oven-stones and waste flakes, which is located further north-west adjoining the Mata-au.

[104] We heard from cultural expert Tūmai Cassidy behalf of Te Rūnanga o Ngāi Tahu and Kāi Tahu ki Otago. Mr Cassidy spoke to us about the significance of the Mata-au for Kāi Tahu, connecting the mountainous regions of the inland area with the life-giving ecosystems of the coast. He shared with us his knowledge of wāhi tūpuna being made up of interconnected sites and areas reflecting the history and traditions associated with the long settlement of Waitaha, Kati Mamoe, and Kāi Tahu in Otago. He noted that the Mata-au River Trail wāhi tūpuna area is identified for potential inclusion in the Central Otago District Plan[56], and shared his concern that there was insufficient information for Kāi Tahu ki Otago to assess whether the proposed alluvial gold mining operation provides for the mauri of the Mata-au and the Tima Burn and protects the values of this wāhi tūpuna landscape. We also heard from Dr Lynda Murchison, planning advisor for Te Rūnanga o Ngāi Tahu and papatipu rūnanga, who shared Mr Cassidy's concern that there was insufficient information to understand the proposed activity and associated effects on te taiao/the natural environment.[57]

[105] In his planning evidence Mr Vial explained that the planning framework recognises and provides for the relationship of Kāi Tahu with wāhi tūpuna (ancestral landscapes) and requires active engagement with mana whenua in managing the effects of an activity on wāhi tūpuna values. He considered there was insufficient information submitted with the application to be satisfied that the activity achieves the purpose of the RMA. In his view, the applicant was relying on the use of consent conditions to 'fill the knowledge' gap.[58] In sum, key concerns included:

- Whether the proposed alluvial gold mining activity provides for the mauri of the Mata-au and the Tima Burn and gives effect to Te Mana o te Wai;
- Whether the proposal preserves the natural character and instream values of the Tima Burn; and
- Effects of the proposal on wāhi tūpuna and archaeological values.

[106] In response to Panel questions, the applicant agreed that further information was required to enable a thorough examination of the proposal and its effects on cultural and heritage values. The applicant team also acknowledged that further engagement was required with Te Rūnanga o Ngāi Tahu and Kāi Tahu ki Otago. As previously discussed, a comprehensive 'Information Package' was subsequently provided by the applicant which incorporated input from Kā Rūnaka. Mr Vial in his supplementary memorandum stated that "the applicant has constructively addressed the feedback of Aukaha and Te Rūnanga o Ngāi Tahu which has narrowed the issues of concern for Kā Rūnaka. The remaining *issues of concern for Kā Rūnaka can be addressed through amendments to the conditions of the land use and regional consents"*.[59] We discuss the remaining issues of concern in turn below.

[107] In terms of effects on Wāhi Tūpuna values, Mr Vial noted that the operation is required to be undertaken in accordance with an Archaeological Management Plan approved by Heritage New Zealand Pouhere Taonga and the recommendations of the Archaeological Report, prepared by New Zealand Heritage Properties Ltd. Notably, manawhenua representatives will be invited to attend test trenching adjoining the Tima Burn. We find this to be appropriate to manage any effects on cultural and archaeological values and note that Ms Stirling and Ms Collie agree this condition is appropriate.

[56] Summary of evidence of Tūmai Cassidy, 15 May 2024
[57] Evidence of Dr Lynda Murchison, 8 May 2024
[58] Statement of evidence, Tim Vial, 8 May 2024, para 125
[59] Memorandum, Tim Vial, 10 July 2024

[108] With regard to the restoration planting of the Tima Burn as proposed as part of the REMP, Mr Vial noted that the proposed consent conditions promoted restoration of the Tima Burn as one of three potential rehabilitation options, which in his view lacked clarity. He sought consent conditions that secured the Tima Burn EEP as an off-set for the mining operation and to enable opportunities for further restoration planting adjoining the Clutha / Mata-au or on the applicant's land adjacent to the Clutha / Mata-au margin. He also noted there is no consent condition that requires the covenanting of the restoration planting to ensure its retention by the landowner and provided an example condition for a planting covenant.

[109] In Reply, Ms Collie provided an amended condition to secure the Tima Burn EEP as the primary option, with other options being secondary in the event landowner permission for planting adjoining the Tima Burn is withdrawn.[60] We discuss the EEP in more detail below.

[110] Ms Collie also provided an amended condition requiring the covenanting of the restoration planting to ensure its retention by the landowner.[61] We note that the amended condition put forward by Ms Collie removed reference to specific Records of Title and specific Planting Zone A and B areas as shown on the Planting Plan attached to the REMP. We find the amended conditions are appropriate.

[111] In response to Mr Vial's suggestion that consent conditions enable opportunities for further restoration planting adjoining the Clutha / Mata-au or on the applicant's land adjacent to the Clutha / Mata-au margin, Ms Stirling recommended that the REMP include provisions for additional enhancement planting opportunities along the Mata-au within the Applicant's land to further offset the effects of the activity and put forward a condition to this effect. Ms Collie disagreed that an additional enhancement planting project as part of this resource consent application was required, and noted the applicant will continue to liaise with Aukaha in respect of future projects. Further, she advised that there is currently no detail available on planting area or species composition in any other location. In her view, the Panel is limited in its ability to consider further enhancement planting areas above and beyond that represented in the REMP and proposed conditions.[62] We agree and accept the evidence of Ms Collie on this matter.

[112] In terms of the effects of the proposal on Wai Māori and Te Mana o te Wai, we discuss effects on groundwater quality and surface water quality in Section 4.2.4. Given our findings on these matters, we are satisfied that any adverse effects will be appropriately managed.

[113] In her Reply Report, Ms Stirling considered that there was now sufficient evidence that the proposal will not result in irreversible damage to the wāhi tūpuna values and historic heritage values linked with the site. She further considered that the conditions proposed by the applicant and recommended by Mr Vial will be effective in avoiding and mitigating potential effects on cultural and Māori heritage values. We generally agree with Ms Stirling.

Finding

[114] Subject to conditions of consent, we find that any adverse effects on heritage and cultural values will be appropriately managed and mitigated so as to be acceptable.

3.2.14 Public Access

[115] The Clutha Gold Cycle Trail is located adjacent to the Clutha River/Mata au and the applicant proposes to divert the trail for a period. The proposal will also have the effect of restricting public access to paper roads within the site, one of which provides access to the Clutha River / Mata-au. Some submitters raised

[60] Right of Reply Statement of Anita Collie, 23 July 2024, para 16
[61] Right of Reply Statement of Anita Collie, 23 July 2024, para 15
[62] Right of Reply Statement of Anita Collie, 23 July 2024, paras 17-18

concerns about the effect of the proposal on public access, specifically effects on public users of the trail, and removal of public access to the River.[63]

[116] Both Ms Collie and Ms Stirling agree that subject to conditions the effect on public access is appropriate given the short distance of the diversions and that public access to the Clutha River/Mata-au will not be restricted. We agree, and in reaching this view note that the applicant has undertaken consultation with the Clutha Gold Charitable Trust and written approval has been provided.

Finding

[117] Subject to conditions of consent, we find that any adverse effects on public access will be appropriately managed and mitigated so as to be acceptable.

3.2.15 Flood Hazard

[118] Neil Williman[64] provided evidence on flood hazard risk on behalf of the Applicant with reference to a Flood Hazard Assessment[65] provided with the CODC application. Mr Williman considered offsite flood hazard risk from the proposed mining and the flood hazard risks to the proposed mine site.

[119] At paragraph 7 of his evidence he stated the proposed activity is not anticipated to adversely affect or exacerbate off-site flood hazard. If the mine pit were to be entered by flood water this would store a part of the flood volume, thus attenuating the flow and reducing the risk to other properties (off site).

[120] His report[66] noted the vast majority of the mine site is elevated on a sub-horizontal terrace, isolated from the main river channel and would be unaffected in an extreme flood event. This was based on flood hazard mapping utilising the ORC natural hazards database.

[121] He considered a small area within the mine site in the vicinity of the Tima Burn (~2% of the site) has the potential to be reached by flood water in a ~100-year ARI storm event or greater. It was explained by the applicant that this area will be backfilled as soon as the mining operations in that particular location are complete (stated by the applicant to take ~ 6 months). Therefore, according to Mr Williman the probability of flood waters impacting the active site has been calculated to be 0.5% for the relevant period of operation.

[122] Mr Williman concluded[67] in the unlikely event that the mining operation is affected by flooding from the Clutha River and/or Tima Burn any effects are to be managed, mitigated and remediated by the Applicant (on site). He also stated that any risks to staff would be very low given anticipated flood warning time.

[123] The ORC s42A Report accepted the flood hazard assessment prepared by Geosolve and considered that flood risk can be adequately mitigated.[68] The council officers did not offer any opinion contra to Mr Williman's evidence.

Finding

[124] Based on the evidence heard, we accept the proposed activity will not adversely affect or exacerbate off-site flood hazard and that any potential flood risks to the site can be adequately mitigated and remedied by the mine operator.

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[63] For example, Graeme Young [# 166], JP Clarke, KL Franklin and FG Works Limited (#172) (subsequently withdrawn)
[64] Senior Water Resource Engineer at Geosolve Limited
[65] Geosolve Limited, September 2023, Flood Hazard Assessment - Millers Flat Alluvial Goldmine, 1346-1536 Teviot Road, Millers Flat, Roxburgh
[66] Section 3 – Conclusions bullet point 3
[67] Primary evidence, paragraph 8
[68] At page 64

3.2.16 Geotechnical Issues

[125] We received Geotechnical evidence from Mr Colin Macdiarmid who addressed the settling time of backfilled land which is relevant to the long term stability of the site post mining. His supplementary evidence[69] outlined that the overall creep settlement of the site under its own self weight over the next 100 years is likely to be a maximum of 60 mm i.e. less than the lower bound provided in literature. He considered that given that the land will be returned to agricultural usage, this settlement is insignificant.

[126] Mr Macdiarmid also calculated appropriate setbacks and batter slopes to protect Teviot Road and the powerlines running along the road corridor from collapse of the mine pit. He found that setbacks from the power poles should be a minimum of 7.5 m with an overall batter slope of 45˚. He noted that this was a conservative assessment.

[127] He reviewed the draft consent conditions attached to the supplementary statement of Ms Collie and considered these to be appropriate in respect of geotechnical matters. This included a requirement to buttress the batter slopes of the mine pit in the event that a Red Rainfall or Flooding Warning is issued by MetService that is relevant for the site

Finding

[128] Mr Macdiarmid's evidence was not challenged by any party and we accept it. We have included the geotechnical conditions he audited in the conditions of consent. Given this, we find that geotechnical issues will be appropriately managed on site.

3.2.17 Positive effects

[129] Paragraphs 12 to 15 of Mr Hawkeswood's evidence outlined positive effects of the proposal. We received no evidence to substantiate the dollar amounts he quoted and placed little weight on those figures in our decision. However, we accept that there will be reasonably significant local employment opportunities on site at Millers Flat with further subcontractor positions off site. We also accept there will be flow on effects to local businesses and the wider economy including royalty payments as outlined by Mr Hawkeswood.

[130] We further accept Ms Stirling's assessment of positive effects in her s42A Report and supplementary s42A Report and agree that the proposed enhancement planting along the Tima Burn will result in a higher level of positive effect on the biodiversity values and wāhi tūpuna landscape, particularly so given the planting is conditioned as a covenant in perpetuity.

3.2.18 Other submitter issues

[131] In Section 2.2 we discuss concerns raised by some submitters that relate to indirect effects and so are not relevant matters we can consider as part of this Decision. We are not aware of any other relevant issues raised by submitters.

3.2.19 Overall findings on effects

[132] In light of the preceding assessments, our overall finding is that with regard to the land use consent required from the CODC, effects are either no more than minor or can be suitably avoided, remedied, mitigated or offset by the imposition of appropriate conditions of consent.

[133] We find the positive effects relating to improved biodiversity values and wāhi tūpuna landscape weigh in favour of granting the consent.

[69] 25 June 2024, paragraph 10

3.3 National environment standards and other regulations

[134] As previously established, a known historic landfill is located near the site and accordingly consent is required as a discretionary activity under clause 11 of the NES-CS. We discuss matters relating to hazardous substances in Section 3.2.9 of this Decision and we consider that, subject to conditions of consent, any adverse effects associated with hazardous substances will be avoided, remedied or mitigated to the extent that they are minor. Given our finding on the effect of the proposal, we consider the proposal to be consistent with the NES-CS.

[135] We discuss relevant national environment standards and other regulations pertaining to the consents required from the ORC in sections 4.3-4.4 of this Decision.

[136] No other party drew our attention to any such matters and we ourselves were not aware of any.

3.4 National policy statements

[137] Ms Stirling considered the National Policy Statement for Indigenous Biodiversity 2023 (NPS-IB) is relevant to our decision and we accept her supplementary evidence that the proposal aligns with the NPS-IB[70].

[138] On this basis, we have found that the proposal is consistent with the provisions of the NPS-IB.

3.5 Regional policy statements

[139] The Operative Regional Policy Statement for Otago (PORPS) was made partially operative on 14 January 2019 and fully operative 15 March 2021. Given our findings on the effects of the applications, we consider the proposal to be consistent with all relevant provisions of the PORPS and in reaching this view we note Ms Stirling's supplementary s42A Report where she concluded that given supplementary evidence provided by the applicant (incorporating input from Kā Rūnaka) the proposal is not inconsistent with the PORPS.[71]

[140] In her initial s42A Report, Ms Stirling recommended that the proposed Regional Policy Statement (originally notified in June 2021) should be given little weight given decisions had not yet been released. However, in her Supplementary s42A Report Ms Stirling updated her position based on Council decisions on the pORPS and concluded that the proposal now supports Kāi Tahu wellbeing, subject to conditions of consent.[72] We accept her opinion on this matter.

3.6 Central Otago District Plan

[141] Ms Stirling supplied an updated assessment of the relevant objectives and policies in her Supplementary s42A Report. She stated that overall, the proposal is not inconsistent with the objectives and policies of the District Plan.

[142] Having carefully considered the objective and policy framework of the District Plan, and in light of our findings with regard to adverse effects of the proposal on the environment under section 104(1)(a), we are satisfied there is sufficient evidence to conclude that proposal is consistent with all relevant Central Otago District Plan objectives and policies.

[70] Supplementary s42A Report, Olivia Stirling, 17 July 2024, paras 68-69
[71] Supplementary s42A Report, Olivia Stirling, 17 July 2024, para 63
[72] Supplementary s42A Report, Olivia Stirling, 17 July 2024, para 65

3.7 Offsetting or compensation measures

[143] Under s104(1)(ab) we are required to have regard to 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.

[144] The Applicant has agreed to provide for an EEP) in the surrounding area. The volunteered condition set in the Right of Reply requires an EEP comprising at least 3,000m2 of native planting in a non-agricultural location near to the site and adjoining the Tima Burn. The Tima Burn EEP would also involve removal of crack willow. Alternatively, should the Consent Holder be unable to obtain landowner permission for planting adjoining the Tima Burn, this condition may be complied with by planting in an alternative location near to the site adjoining the Clutha / Mata-au or on the Consent Holder's land adjacent to the Clutha / Mata-au margin.

[145] The Applicant's preference is for the EEP to apply to the Tima Burn. We understand there has been verbal correspondence between the Applicant and Ms Parker, Mr Parker & Mr Hunter (landowners surrounding Tima Burn) to come to an agreement on the stretch of land for the proposed enhancement project.[73]

[146] The HML Post Hearing Consultation Summary indicated that the Applicant has engaged meaningfully with Aukaha / Kā Rūnaka on the development of the EEP since the hearing. Of note, the planting plan was reviewed by the Nursery Manager, Kāti Huirapa Rūnaka ki Puketeraki. The following overarching comment was made that the 'Planting plan looks good'. Recommendations were made on plant spacings, pint bag sizes, species selections and replacement schedules. HML indicated they were happy with these amendments. The Tima Burn indigenous restoration planting plan that has been developed to date is outlined in Appendix 3 of the draft Rehabilitation and Enhancement Management Plan (REMP). This is the area we walked over in our site visit.

[147] The conditions of consent require the specifications of the EEP to be included in the certified REMP. Condition 36 provides for two alternative planting locations should the Tima Burn site become unavailable due to landowner approval being withdrawn or not be forthcoming. Condition 37 also provides for further consultation on the development of the REMP with Kāti Huirapa Rūnaka ki Puketeraki, Te Rūnanga o Ōtākou and Hokonui Rūnanga (Kā Rūnaka) via Aukaha.

[148] The Applicant is seeking the EEP to remain in perpetuity. The final condition set in the right of reply addressed this. Condition 38 states that at the completion of mining and before the expiry of this consent, at the consent holder's cost, the consent holder shall arrange for a section 108(2)(d) Resource Management Act 1991 covenant in favour of Council which is to be registered on a parcel of land on, or adjacent to, the mine footprint. There are various requirements in this condition to provide for protection of the plantings in perpetuity.

[149] We have had regard to the EEP under section s104(1)(ab). We note this is consistent with paragraph 71 of Ms Stirling's Supplementary Section 42A Report.

[150] We note that Ms Stirling considers the proposed planting of the Tima Burn riparian margin to be a biodiversity offset in terms of the NPS-IB[74]. Ms Collie disagrees, and in her Reply Statement[75] considers that the technical evidence demonstrates there will be no more than minor residual effects on indigenous biodiversity. We accept this evidence and accordingly, we do not consider the planting at Tima Burn to be "offset" in accordance with the NPS-IB, but rather a positive effect from the proposal in terms of s104(1)(ab).

[151] Regardless, we consider it is a significant positive effect that assisted us in making our final decision.

[73] HML Post-Hearing Consultation Summary

[74] Supplementary s42A Report, Olivia Stirling, 17 July 2024, para 71

[75] Right of Reply Statement of Anita Collie, 23 July 2024, para 14

3.8 Section 104(1)(c) other matters

[152] The Kai Tahu ki Otago Natural Resource Management Plan 2005 and the Ngāi Tahu ki Murihiku Natural Resource and Environmental Iwi Management Plan 2008 are relevant other matters. By the close of Hearing, Mr Vial considered that the majority of Kā Rūnaka's concerns had been constructively addressed by the applicant, and that the remaining issues identified can be resolved via conditions of consent. We note that Ms Stirling accepts Mr Vial's evidence, as do we, and overall, we find that the proposal is consistent with both iwi management plans.

3.9 Part 2 matters

[153] We are aware of the case law which outlines that if the lower order statutory instruments appropriately deal with Part 2 matters, then no further assessment of Part 2 matters is required. In this case, the CODP is an older document, and we are uncertain about the extent to which it adequately addresses Part 2 matters, including any such matter embodied in national policy statements.

[154] We have carefully considered all the evidence presented to us at the Hearing and the supplementary information and evidence provided by the applicant and Council officers following the Hearing. We are satisfied that sufficient evidence has been provided to conclude that the proposal is consistent with all elements of Part 2, and in reaching this view we note that Aukaha (on behalf of Kā Rūnaka and Te Rūnanga o Ngāi Tahu) has confirmed that the concerns of, and relief sought by, Kā Rūnaka have been addressed. We further note that Ms Stirling concluded in her s42A Reply Report that the application now recognises and provides for the relationship of Māori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga, subject to the imposition of relevant conditions of consent.

[155] Overall, for the reasons outlined, we find that the proposal is consistent with Part 2 matters.

3.10 Consent duration and lapsing

[156] As we noted previously, the applicant has sought a 10-year duration for all activities except for the proposed water take where a 6-year term is sought. Initially, in her s42A Report, Ms Stirling recommended limiting the duration of the land use consent to six years to align with the water permit duration, as a water permit is necessary for dust control.

[157] In her evidence, Ms Collie disagreed and instead recommended that an advice note be added to the land use consent noting that the water permit is required for dewatering and that renewal, or an alternative source, should be sought in advance of the expiry of the water permit. We find this to be appropriate.

[158] We agree with Ms Collie that the requested 10 year duration is essential to provide for the activity to be undertaken including sufficient time for rehabilitation, and note that in her s42A Reply Report, Ms Stirling concluded that given in her view the effects of the proposal can appropriately be avoided, remedied or mitigated overall, and that that there is sufficient evidence and conditions in place that the proposal will be appropriate in this location for a maximum duration of 10 years. We accept her evidence on this matter and have granted consent for 10 years, except for the proposed water take which we have granted for 6 years.

3.11 Consent conditions

[159] Ms Stirling recommended a suite of consent conditions as part of her Supplementary s42A Report. For the applicant a suite of recommended conditions was attached to Ms Collie's Reply Statement that contained several amendments as discussed throughout this Decision. We have generally adopted the Reply version of conditions except where otherwise discussed throughout this Decision. We have also amended the wording of some conditions so that they more easily interpreted and/or impose enforceable obligations on the consent holder.

[160] It is conceivable that the conditions imposed by us may contain errors. Accordingly, should the applicant or CDOC identify any minor mistakes or defects in the attached conditions, then we are prepared to issue an amended schedule of conditions under s133A of the RMA correcting any such matters. Consequently, any minor mistakes or defects in the amended conditions should be brought to our attention prior to the end of the 20-working day period specified in section 133A of the RMA.

3.12 Determination

[161] We approve the resource consents sought by HML from the Central Otago District Council.

[162] Our reasons are detailed in the body of this Decision, but in summary they include:

- Potential adverse effects of the proposal are either minor; minimised to the extent practicable or are otherwise suitably avoided, remedied, mitigated or offset by the imposition of appropriate conditions of consent; and
- The proposal is consistent with the relevant statutory instruments.

4.0 Otago Regional Council consents

4.1 Consents required and consent category

[163] The application to ORC seeks the following consents for the purpose of alluvial gold mining:

(a) Water permit RM23.819.01: to take and use groundwater for both consumptive and non-consumptive use
(b) Land use consent RM23.819.02: to construct a bore (mine pit pond)
(c) Discharge permit RM23.819.03: to discharge water containing sediment to water in a bore and to land in a manner that may enter water
(d) Discharge permit RM23.819.04: to discharge to air contaminants from the operation of an alluvial gold mine
(e) Water permit RM23.819.05: retrospective consent to take and use groundwater for the purpose of trialling pit dewatering.
(f) Discharge permit RM23.819.06: retrospective consent to discharge water containing sediment to land for the purpose of trial pit dewatering.

[164] Resource consents are required from the ORC under the Regional Plan: Water for Otago (RPW) and Regional Plan: Air (RPA) as follows:[76]

Planning instrument	Rule	Purpose	Activity Status
RPW	14.1.1.1	To construct a bore mine (mine pit pond)	Controlled
RPW	12.2.4.1(i)	To take and use groundwater (partially retrospective for trial dewatering)	Discretionary
RPW	12.C.3.2	To discharge water and sediment to water and to land where it may enter water	Discretionary
RPW	12.B.4.1	To discharge water and sediment to water or to land from an industrial or trade premises	Discretionary
RPA	16.3.5.9	To discharge contaminants to air	Discretionary

[165] It was common ground that the proposal is therefore to be assessed as a discretionary activity.

4.2 Effects assessment

[166] We now assess the actual and potential effects on the environment of the proposed activities.

4.2.1 Permitted baseline

[167] As we noted earlier, when forming an opinion for the purposes of subsection 104(1)(a) of the RMA we may disregard an adverse effect of the activity on the environment if a national environmental standard or a plan permits an activity with that effect.[77]

[168] Ms Ter Huurne considered[78] the construction of a bore (in this case, a mine pit where it intercepts groundwater) requires consent as a controlled activity. Given that the other mining activities could not be undertaken without this, the permitted baseline is considered to be of little relevance. We accept this.

[169] Accordingly, we elect not to disregard any effects of the proposal activity under s104(2) of the RMA, noting that we do not consider the applicability or otherwise of the permitted baseline as being a determinative matter in this case.

[76] ORC Section 42A Report, section 5 'Status of the Application'
[77] Section 104(2) of the RMA
[78] S42A Report, section 6.1.1

4.2.2 Groundwater Extraction Effects

[170] We heard evidence regarding the potential effects of groundwater extraction from the mine pit on aquifer allocation, and the possibility of drawdown effects on adjacent bores and the Tima Burn surface water flows.

[171] Effects on aquifer allocation were assessed in the original s42A report, and this assessment remained unchanged.[79] According to Ms Ter Huurne adverse effects on Aquifer allocation are acceptable, on the basis that the take will be predominantly non-consumptive, and water taken during initial dewatering will be returned to land overlying the aquifer and allowed to soak back into groundwater. Additionally, no restriction levels have been set for the unmapped aquifer, therefore the water take will not result in over-allocation. We accept that.

[172] Mr Heller provided a supplementary statement[80] of evidence addressing questions raised by Ms Badenhop about the uncertainty of effects based on the level of information provided in the Assessment of Effects.

[173] With regard to Ms Badenhop's suggestion that there was some uncertainty around aquifer parameters and investigation data pertaining to the HML proposal. Mr Heller stated[81] that Ms Badenhop did not provide any technical evidence to illustrate her concern. Ms Badenhop did acknowledge that the mine pit pumping test provides the best information regarding the required pumping rates (and that also follows on to assessment of effects of the activity).

[174] Mr Heller revisited his assessments given these comments and confirmed his earlier opinion that the aquifer testing, trial dewatering testing and other aquifer information had been undertaken to reasonable required standard and provided an appropriate basis for assessment of the proposal.

[175] With regard to Ms Badenhop considering that there is "considerable" uncertainty around the actual effects that may occur from the HML mining proposal, Mr Heller accepted[82] there is a degree of uncertainty, but the position is more nuanced than Ms Badenhop's statement suggests, given the way he approached his assessment.

[176] Mr Heller's analysis was undertaken allowing for that consideration. He remained of the view that Ms Badenhop's characterisation is unhelpful, to the extent that it might suggest the potential for effects beyond the bounds of what has been assessed. In his opinion that is not the case. He considered the scope for variance of effects is constrained to within the conservative effects assessment (based on known factual data and science), provided by the Applicant.

[177] With regard to potential effects of the proposed mine dewatering drawdown upon adjacent water supply wells, in Mr Heller's opinion[83] there is likely to be only 4 wells used for drinking water supply that may be adversely affected by the mining proposal (a lesser number than identified in the conservative assessment). Those 4 well owners have provided written approval. In any event, water supply is secured through conditions of consent if effects occur.

[178] At the direction of the panel, the Applicant completed a draft Water Management Plan (WMP) that outlines all monitoring and compliance requirements and presents a specific trigger level assessment approach and methodology to address all potentially affected well owners in relation to the proposed mining activity.

[179] According to Mr Heller, the most recent recommended resource consent conditions as attached to the supplementary evidence of Ms Collie provide specific requirements for HML in respect of maintaining water supply continuity to well owners (for both quantity and quality of supply). We note that the MFWC have

[79] Section 42A Updated Staff Recommending Report, 17 July 2024, Section 2.1.2
[80] 25 June 2024
[81] Paragraph 5
[82] Paragraph 6
[83] Paragraph 13

been involved in the drafting of the conditions of consent relating to water supply[84] and that they are satisfied that the draft conditions address issues they raised.

[180] Mr Ter Huurne[85] considered that the adverse effects on other water users will be acceptable.

[181] With regard to the potential for mine pit dewatering to affects flow in the Tima Burn. Mr Heller conducted more field work and analysis to demonstrate this is highly unlike to occur.

[182] In summary[86] he found the piezometer and stream level data physically measured (shown in Figure 1 of his supplementary evidence), conclusively shows that the Tima Burn in the reach below the Tima Burn Bridge is perched above the local water table aquifer. Additionally, the thickness of the unsaturated zone of aeration (or Vadose Zone) is much greater than 5-times the stream depth over the reach. He stated, this means that any drawdown of the water table level as a result of mine dewatering, is highly unlikely to affect the natural flow (or any natural losses), in the Tima Burn.

[183] Notwithstanding the above finding, Mr Heller stated[87] HML are still committed to providing an augmented flow to the Tima Burn on the basis of the agreed and proposed ORC recommended adaptive management conditions of resource consent, in the event of mine pit dewatering induced stream depletion.

[184] Further, Mr Heller stated for this purpose and at the direction of the panel, HML has completed a draft water management plan which details all monitoring and compliance requirements and presents specific trigger level and flow responses to address the required flow augmentation to the Tima Burn.

[185] According to Ms Ter Huurne[88] the supplementary information groundwater assessment was audited by Ms Badenhop on behalf of ORC. No issues with Mr Heller's assessment were identified in the updated s42A Report.

[186] We accept the evidence of Mr Heller and consider that it provides a robust assessment of the potential effects from groundwater extraction associated with the proposal.

Finding

[187] Subject to the conditions of consent, we find that groundwater extraction effects will be appropriately avoided, remedied and mitigated.

4.2.4 Effects on groundwater and surface water quality

[188] Several submitters raised concerns about effects on surface water quality, particularly with regard to the Tima Burn and the Mata-Au which are the main surface water bodies in the vicinity of the site.

[189] Mr Young who lives at 1266 Teviot Road was concerned about water quality effects in a stream that runs through his property. We heard no evidence to suggest that this stream was hydraulically linked to the groundwater beneath the site as is it located a considerable distance to the north of the site, upstream from the groundwater flow direction. We heard that the direction of groundwater flow at the mine site is predominantly from the northeast to southwest towards the Clutha River/Mata-Au.[89] In addition, no surface water runoff from the site will enter the stream he referred to. Hence, we find that the proposal will not affect this water body.

[84] Email from Mr Dons, 15 June 2024
[85] Para 2.17, Section 42A Updated Staff Recommending Report, 17 July 2024
[86] Paragraph 26 - 28
[87] Paragraph 33 and 34
[88] Section 42A Updated Staff Recommending Report – 17 July 2024
[89] S42A Report section 6.1.3

[190] We heard evidence that several mitigation measures that have been incorporated in the mine design (and that have been brought into consent conditions) in order to avoid, remedy or mitigate adverse effects on surface water bodies including the Tima Burn and Mata-Au. These include establishing a buffer zone and perimeter bunding between the mine site and the water bodies, and only discharging sediment laden water to land in a manner where it does not enter surface water bodies. The sediment laden water will filter through the gravels on the site.

[191] Since the hearing that Applicant has supplied a draft Water Management Plan and an updated set of conditions to further address adverse effects on surface water bodies. The WMP and updated set of conditions have been audited by ORC Council Officers. Ms Ter Huurne's final position is that "*Overall, adverse effects on surface water quality will be appropriately managed and mitigated so to be acceptable".* We accept her assessment on this matter.

[192] Several submissions raised concerns about potential effects of the proposal on groundwater quality and the Millers Flat water supply. Key issues discussed in respect of groundwater quality were the mobilisation of contaminants from the closed landfill, and the possible introduction of sediments.

[193] Given the uncertainty around the potential for groundwater contamination below the closed landfill, Ms Badenhop recommended that dedicated monitoring bores are installed on the site boundaries, with ongoing monitoring of turbidity, total suspended solids, and landfill contaminant indicators such as NH4- N, Cl, and metals.

[194] Consent conditions were recommended accordingly to ensure groundwater monitoring is undertaken prior to commencement of works, as well as ongoing to provide an indication of any groundwater contamination and provide early warning of contamination issues (in the event they arise) to groundwater users.

[195] The Applicant accepted conditions in this respect and also submitted a draft WMP which incorporated input from Aukaha, Mr Hamer, Ms Badenhop and submitters, and largely accepted and adopted suggestions from these parties. The WMP details additional groundwater protection measures, including a Spill Response Plan, daily inspections, discharge quality monitoring, groundwater quality monitoring, and Tima Burn augmentation.

[196] Overall, Ms Ter Huurnes considered the Applicant's supplementary information and proposed consent conditions reduce the uncertainty around the potential for groundwater contamination and further mitigate the potential risk. She considered that adverse effects on groundwater quality will be appropriately managed and mitigated, so to be acceptable. We accept her assessment on this matter.

Finding

[197] Subject to the conditions of consent and in particular the conditions specifying the matters to be addressed in the WMP, the establishment of a water quality monitoring network, monitoring requirements, comparison with the NZ Drinking Water Standards, provision for alternative drinking water (if needed), monitoring of water quality in the Mata-Au, and reporting requirements, we find that adverse effects on surface water quality and groundwater quality will be sufficiently avoided, remedied and mitigated.

4.2.5 Effects on freshwater ecology

[198] Mr Vial's[90] evidence stated that there is no information provided in the application on the interaction between groundwater and surface water in Tima Burn, and the effects on flows, natural character, and instream values in the Tima Burn from the groundwater take. Rather, an assessment of natural flow losses in the Tima Burn was at the time of the hearing proposed as a condition of consent.

[90] Paragraph 107

[199] Dr Allibone's primary evidence discussed a fish, macroinvertebrate and habitat survey he undertook of the lower Tima Burn to determine the ecological condition of this stream and assess the possible effects of any dewatering as a result of the proposed mining activity. No threatened fish or macroinvertebrates were found in the Tima Burn.

[200] He noted[91] the riparian habitat upstream of the Teviot Road is assessable to stock. Downstream of the road the riparian zone is fenced but was dominated by crack willow trees and their root mats extend into and often across the river channel. These willow root mats smother instream habitat used by fish and macroinvertebrates and are major detrimental effect on the stream health.

[201] Dr Allibone stated[92] the lower Tima Burn fish, macroinvertebrate and habitat assessments found the stream has low habitat quality and the freshwater fauna is also of low quality and dominated by species, eels and worms, which tolerate relatively poor water and/or habitat quality.

[202] Mr Hammer also considered[93] the Tima Burn stream habitat is of low quality. Although he considered the fish community present is indicative of "high" quality in terms of rarity values. This was because, while lamprey were not found in the survey undertaken by Dr Allibone (likely due to a lack of suitable backwaters with fine sediment streambed) they have been found to be present on 3 occasions in the last 25 years indicating they do use this waterway as habitat. He considered water augmentation to maintain or enhance the stream flow is appropriate and beneficial to the ecology of the stream provided the water is of good quality.

[203] As a precautionary measure, the Applicant volunteered flow augmentation of the Tima Burn as a mitigation measure in the event that groundwater drawdown from mine pit dewatering influenced flows in the Tima Burn. We discuss the likelihood of this occurring in the groundwater drawdown section of our decision.

[204] At the hearing we outlined our concerns about the proposed Tima Burn flow augmentation methodology. Whilst we had no problem with the concept as a mitigation measure for groundwater drawdown, we could see practical issues with implementing it. The Applicant has since revised the flow augmentation methodology as reflected in the condition set provided in the Right of Reply. We consider the implementation concerns we raised at the hearing have been appropriately addressed.

[205] Dr Allibone provided a supplementary statement of evidence dated 25 June 2024. Paragraph 6 of that statement provides a useful summary of the areas of how areas of disagreement with Mr Hammer at the time of the hearing have been resolved, as follows:

> *"I have listened to Mr Hamer's hearing appearance (via YouTube) and read his statement. I note his remaining concern that we may have missed lamprey in our survey work. I maintain my view that the assessments I undertook were appropriate as detailed in my evidence and reports, and they demonstrate lamprey if present occur such low densities, they are difficult to detect. However, protection for any lamprey and aquatic community in general is provided by the water augmentation consent condition that prevents drying of the Tima Burn. Therefore, I would conclude there are no outstanding aquatic ecological matters to resolve for the Tima Burn. I understand that Mr Hamer agrees with this conclusion despite our difference of opinion with respect to the potential presence of lamprey"*

[206] Section 2.1.8 of Ms Ter Huurne's updated staff report[94] states Mr Hammer is satisfied that *"water augmentation to maintain or enhance stream flow is appropriate and beneficial to the ecology of the stream provided the water is of good quality".* She considered the conditions of consent addressed this quality issue.

[91] Summary statement of evidence, paragraph 6
[92] Primary evidence, paragraph 33
[93] Mr Hammer summary of primary evidence
[94] 17 July 2024

[207] Overall, Ms Ter Huurne considered that adverse effects on the ecological values of the Tima Burn will be appropriately managed and mitigated, so as to be acceptable.

Finding

[208] Subject to the condition of consent, we accept Ms Ter Huurne's opinion that adverse effects on the ecological values of the Tima Burn will be appropriately managed and mitigated, so as to be acceptable.

4.2.6 Effects on cultural values

[209] Ms Ter Huurne updated her position regarding the effects on cultural values in section 2.1.9 of her updated s42A Report. She noted that following the hearing, Mr Vial, on behalf of Aukaha, and Dr Murchsion, on behalf of Te Runanga o Ngai Tahu (TRONT), have reviewed the supplementary information provided by the Applicant, including additional management plans and draft conditions. In the memorandum from Mr Vial, dated 10 July 2024, he confirmed that the Applicant has further narrowed the areas of concern for Kā Rūnaka and that the remaining areas of concern can be addressed through recommended conditions outlined in the memorandum. Mr Vial confirmed that Kā Rūnaka now neither oppose nor support the application.

[210] Given the above, Ms Ter Huurne considered that adverse effects on cultural values can be appropriately managed and mitigated so as to be acceptable. We accept that, noting that this is consistent with our findings on the CODC application.

Finding

[211] Subject to conditions of consent, we find that any adverse effects on cultural values will be appropriately managed and mitigated so as to be acceptable.

4.2.7 Effects on historic heritage values

[212] Section 2.1.10 of Ms Ter Huurnes updated s42A Report considered that whilst the construction of the bore (mine pit) has the potential to adversely affect archaeological values, this ultimately falls within CODC's jurisdiction, and these effects are appropriately determined under the CODC application. We accept this, and accordingly have addressed effects on historic heritage values in Section 3.2.13.

4.2.8 Effects on air quality and human health

[213] We received technical evidence regarding dust effects from Mr Goodhue on behalf of the Applicant and Mr Bender for ORC.

[214] We have noted that a significant proportion of the property owners around the site have provided their written approval to the proposal.[95] This means that there are a limited number of sensitive receptors that could potentially be affected by dust.

[215] Mr Goodhue's[96] supplementary statement responded to dust related questions raised in the hearing. He updated the Dust Management and Monitoring Plan (DMMP) to define Sensitive Receptor Management Zones in response to written approvals, outlined a process for positioning of dust monitors which will be installed in predominant downwind locations on, or near, the site boundary to measure PM10 concentrations. Additional details included definitions of the predominant downwind directions, and Figure 6 was added to indicate the ranges of locations for the real-time monitors. In his view the DMMP is now in an appropriate form to manage and control air quality effects related to the operation of the gold mine.

[95] Supplementary Statement of Anita Collie, 25 June 2024, Appendix B
[96] 25 June 2024, paragraph 4

[216] He also reviewed the proposed conditions of the Air Discharge Permit and made a number of minor technical recommendations as outlined in the supplementary evidence of Ms Collie. He considered these conditions are appropriate to control to potential air quality effects of the operation.

[217] Mr Bender reviewed the latest updated draft of the DMMP provided by Air Matters (Dated 17 June 2024). He considered[97] the additional details in the DMMP were beneficial for providing clarity to site operators, council staff, and other stakeholders. He was satisfied with the contents of the DMMP, and considered the proposed mitigation, monitoring, and reporting procedures to be appropriate for managing dust from the Site at an acceptable level without causing adverse effects which would be greater than minor beyond the site boundary. We accept his opinion.

[218] Ms Ter Huurne considered[98], given the mitigation measures proposed to be implemented, and subject to the activity being undertaken in accordance with the application and consent conditions, adverse dust effects on the environment and human health will be appropriately managed and mitigated, so as to be acceptable. We accept her opinion on this matter.

Finding

[219] On the basis of the evidence we heard, and subject to the conditions of consent, we consider that any adverse effects of dust arising from the proposal will be minor.

4.2.9 Life supporting capacity of soils

[220] Whilst not identified as a principal issue in contention, we have considered the life supporting capacity of soils on the site post mining.

[221] Safeguarding the life supporting capacity of soil is included under the definition of sustainable management in s5(2)(b) of the Act. The Applicant has stated that the site is to be returned to productive pastoral land of identical or better quality as existed prior to the mining operation commencing.[99]

[222] The management practices that the Applicant will adopt to manage the soil resource are listed in the REMP and the Topsoil Management Plan (TMP) supplied in the Further Information bundle July 2024.

[223] Ms Ter Huurne stated that the life supporting capacity of soil is ultimately determined by final site rehabilitation which is best addressed by CODC. We accept that.

[224] We also note that whilst the TMP is not included specifically as a management plan in the conditions of consent offered by the Applicant in the Right of Reply, it is included in Appendix 2 of the REMP. Condition 36 (relating to the content of the REMP that is submitted for certification) requires the following matters to be addressed:

- Methods to preserve the topsoil resource and topsoil health;
- Methods and timeframes for re-grassing and restoring agricultural productivity of the mined land.

[225] Ms Stirling reviewed the REMP and condition 36 and stated in her supplementary s42A Report that she now considered that this proposal is consistent with Part 2 of the RMA[100]. This includes safeguarding life supporting capacity of soils. We accept her opinion on this matter.

Finding

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[97] Email, June 18, 2024

[98] Section 42A Updated Staff Recommending Report, 17 July 2024, paragraph 2.1.11

[99] Rehabilitation and Enhancement Management Plan (Rev C) Millers Flat Alluvial Goldmine June 2024, section 3.1

[100] Paragraph 70

[226] Subject to the conditions of the CODC consent, and in particular the condition specifying the matters to be addressed in the REMP relevant to soil quality, we find that the proposal will support the life supporting capacity of soils.

4.2.10 Positive effects

[227] We addressed positive effects of the proposal in section 3.2.17 of this Decision. We record that our findings in that section apply equally to applications that we assess under delegated authority from the ORC.

4.2.11 Overall finding on effects

[228] Overall, subject to the conditions of consent, we find that the adverse effects of the proposal will be appropriately avoided, remedied and mitigated. This weighs in favour of a grant of consent.

4.3 National Environment Standards and Other Regulations

[229] Ms Ter Huurne drew our attention to the following national environmental standards and other regulations that are relevant to our decision. These include:

- The National Environmental Standard for Sources of Human Drinking Water;
- Resource Management (National Environmental Standards for Freshwater) Regulation 2020 (NESFW 2020); and
- Resource Management (Measurement and Reporting of Water Takes) Regulations 2010 and Amendment Regulations 2020.

[230] Regulations 7 and 8 of the National Environmental Standard for Sources of Human Drinking Water (NES) need to be considered when assessing water permits that have the potential to affect registered drinking water supplies that provide 501 or more people with drinking water for 60 or more calendar days each year.

[231] Ms Ter Huurne considered[101] that subject to the proposed mitigation measures, and recommended consent conditions, adverse effects on any downstream registered drinking water supply can be appropriately managed.

[232] The NESFW 2020 regulations came into force on 3 September 2020. They impose standards on a range of farming activities and other activities relating to freshwater. They also set out a framework for consenting certain activities if the standards are not met. We heard that no resource consents are required under the NESFW for the proposed activities. We accept that.

[233] Whilst the proposed take is predominantly non-consumptive, the Applicant proposes to fully comply with the Resource Management (Measurement and Reporting of Water Takes) Regulations 2010 and Amendment Regulations 2020.

4.4 National Policy Statements

[234] We are not aware of any national policy statement being relevant to our consideration of the consents required from the ORC other than the National Policy Statement for Freshwater Management 2020 (NPS-FM). Ms Ter Huurne provided an updated assessment of the proposal against the NPSFM in Table 1 of the updated s42A Report based on the further information provided by the Applicant, the extensive consultation since the hearing and the updated set of conditions. She considered the proposal is consistent with the provisions of the NPSFM. We have carefully considered her assessment in Table 1 and accept her finding.

[101] Section 42A Updated Staff Recommending Report, 17 July 2024, section 2.2.1

[235] We are cognisant that in his evidence, Mr Vial stated that in his view the proposal did not meet Policy 7 of the NPS-FM or (Policy LF–FW–P13 of the PORPS and Policy 5.4.2A of the RPW which are required to give effect to Policy 7 of the NPS-FM)[102] because the applicant had not demonstrated that there is a functional need for mining activity in this location, nor had the Applicant applied the effects management hierarchy to manage the effects of the activity.

[236] With regard to 'functional need', we received no other planning evidence on this specific matter with the exception of Ms Collie, who stated in her evidence that *"Policy 5.3.4[103] recognises the functional needs of mineral extraction and processing activities to locate where the resource exists"*.[104] Mr Brabant in his legal submissions stated that "*Mining as an activity has a functional need to locate where the resource in question is located*"[105]. We understand the NPS-FM defines 'functional need' to mean: the need for a proposal or activity to traverse, locate or operate in a particular environment because the activity can only occur in that environment[106]. Having carefully considered all relevant factors relating to the proposed activities, including the Mining Exploration Permit for the subject location provided under the Crown Minerals Act 1991, we are satisfied that the 'functional need' test has been met. We are not required to consider the potential for extractable minerals beyond the application site when assessing whether the activity can only be located within the proposed envelope.

[237] We are similarly satisfied that the applicant has properly applied the effects management hierarchy as detailed in our findings throughout this Decision. Overall, we find that the proposal is consistent with the NPS-FM, and in reaching this view, we note that Mr Vial did not pursue this matter further and confirmed that the applicant had constructively addressed the feedback of Aukaha and Te Rūnanga o Ngāi Tahu.

4.5 Regional Policy Statements

[238] The Operative RPS (ORPS) was made fully operative on the 30th of March 2024. Ms Ter Huurne supplied a comprehensive assessment of the relevant objectives and policies in the ORPS in Table 2 of her updated s42A Report. She stated that overall, the proposal is considered to be generally consistent with the objectives and policies of the ORPS. This assessment was not challenged. We have carefully considered her assessment in Table 2 and accept her finding, noting however, that we consider the effects on groundwater quality are known with more certainty that it would appear in the assessment.

[239] The Proposed Otago Regional Policy Statement (P-ORPS 2021) was first notified on the 26th of June 2021 and on 30 September 2022 for the freshwater instrument components. On 30 March 2024 the P-ORPS 2021 was fully notified. Ms Ter Huurne provided a comprehensive assessment of the relevant provisions in the P-ORPS 2021 relating to air, land and freshwater, land and freshwater visions and management, freshwater, land and soil, and ecosystems and indigenous biodiversity. She considered the proposal is now generally consistent with the objectives and policies of the proposed ORPS. This assessment was not challenged. We accept her overall finding.

4.6 Regional Plan: Water for Otago (RPW)

[240] Ms Ter Huurne supplied a comprehensive assessment of the relevant objectives and policies in the RPW in Table 3 of her updated s42A Report. She stated that overall, the proposal is considered to be generally consistent with the objectives and policies of the RPW. With the exception of her recommendation relating to consent duration in her assessment of Chapter l0A - Replacement Water Take and Use Permits we accept her assessment.

[102] Statement of Evidence Tim Vial, 8 May 2024, paras 60, 91, 95
[103] Policy 5.3.4 of the Regional Policy Statement 2019 (RPS)
[104] Planning Evidence of Anita Collie, 29 April 2024, para 217
[105] Legal Submissions of Jeremy Brabant on behalf of Hawkeswood Mining Limited, 8 May 2024, para 46(b)
[106] National Policy Statement for Freshwater Management 2020, January 2024

[241] Ms Ter Huurne stated that given that the permits are intrinsically linked, and that the other permits cannot be implemented without the water permit, she considered a consent term of six years for all consents is appropriate. We disagree for reasons outlined in section 3.1.10. We have granted consent for 10 years, except for the proposed water take which we have granted for 6 years.

4.7 Regional Plan: Air for Otago (RPA)

[242] Ms Ter Huurne provided an assessment against the relevant objectives of the RPA in the original s42A report. She found that the proposal is generally consistent with the relevant objectives and policies of the RPA. This position was unchanged in her updated s42A Report. We accept her assessment and adopt in our decision.

4.8 Offsetting or compensation measures

[243] Under s104(1)(ab) we are required to have regard to 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. We have discussed the EEP offset agreed to by the applicant in section 3.8 of our decision. For the sake of brevity we simply note that this discussion also applies to our decision with respect to the ORC consent applications, and in particular note that offset or compensation is offered in terms of the NPS-FM.which we find to be appropriate.

4.9 Section 104(1)(c) other matters

[244] We discussed the The Kāi Tahu ki Otago Natural Resource Management Plan 2005 and the Ngāi Tahu ki Murihiku Natural Resource and Environmental Iwi Management Plan 2008 as being relevant other matters in Section 3.7 of this Decision. We record that our findings in that section apply equally to applications that we assess under delegated authority from the ORC and overall, we find that the proposal is consistent with both iwi management plans.

4.10 Section 105(1) matters

[245] Section 105(1) of the RMA states that where an application is for a discharge permit to do something that would otherwise contravene Section 15 or Section 15B of the Act we must have regard to certain matters, namely:

- the nature of the discharge and the sensitivity of the receiving environment to adverse effects;
- the applicant's reasons for the proposed choice; and
- any possible alternative methods of discharge, including discharge into any other receiving environment.

[246] We have had regard to these matters and consider that the nature of the discharge is appropriate in the receiving environment. This is reflected in our findings with regard to groundwater quality and surface water quality in particular. The applicant is constrained to operate in the area where the resource they seek to mine is located. We consider the method of discharge proposed is appropriate.

4.11 Section 107(1) matters

[247] Section 107(1) of the Act states, except as provided in subsection (2) (relating to exceptions), a discharge permit shall not be granted if, after reasonable mixing, the contaminant or water discharged (either by itself

or in combination with the same, similar or other contaminants in water) is likely to give rise to all or any of the following effects in the receiving waters:

a) The production of any conspicuous oil or grease films, scums or foams, or floatable or suspended material;
b) Any conspicuous change in the colour or visual clarity;
c) Any emission of objectionable odour;
d) The rendering of fresh water unsuitable for consumption by farm animals;
e) Any significant adverse effects on aquatic life.

[248] On the basis of our findings outlined in the effects assessment we consider that the discharges proposed will not give rise to the matters listed and that section 107 is not an impediment to a grant of consent to this proposal.

4.12 Part 2 matters

[249] We are aware of the case law which outlines that if the lower order statutory instruments appropriately deal with Part 2 matters, then no further assessment of Part 2 matters is required. However, we note that in the *Lindis* decision[107] the Court concluded that notwithstanding the Court of Appeal decision in *RJ Davidson Family Trust v Marlborough District Council,* it was desirable to assess Part 2 matters because of inconsistencies in the RPW. Consequently, we address Part 2 matters here.

Section 5

[250] Ms Ter Huurne[108] was satisfied that the proposal achieves the sustainable management purpose of Section 5. She stated the proposal enables the use, development and protection of natural and physical resources in a way that enables people and communities to provide for their wellbeing.

[251] The proposed water take is considered to be a sustainable use of the water resource, given its predominantly non-consumptive use, and the proposal is considered to safeguard the life-supporting capacity of air, water and ecosystems. She noted in terms of the life-supporting capacity of soil, this ultimately is determined by final site rehabilitation, and is best assessed under the CODC application. We considered the life supporting capacity of soils as a regional matter in section 4.2.9 and have found that subject to the conditions of consent, the proposal will support the life supporting capacity of soils.

[252] Ms Ter Huurne also considered that adverse effects of the proposal can be appropriately managed and mitigated.

[253] Ms Ter Huurne's findings with regard to section 5 were not challenged (apart from the matter we discussed above). We find that the proposal achieves the sustainable management purpose of Section 5.

Section 6

[254] Section 6 sets out a number of matters of national importance which need to be recognised and provided for. The following matters of national importance are of relevance to this proposal:

> (a) *the preservation of the natural character of the coastal environment (including the coastal marine area), wetlands, and lakes and rivers and their margins, and the protection of them from inappropriate subdivision, use, and development*:
> (d) *the maintenance and enhancement of public access to and along the coastal marine area, lakes, and rivers:*
> *(e) the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga:*
> *(f) the protection of historic heritage from inappropriate subdivision, use, and development.*

[107] *Lindis Catchment Group Limited vs ORC* [2019] NZEnvC 166 at [508]
[108] Section 4.1 Updated s42A Report, 17 July 2024

[255] We have recognised and provided for these matters in our decision. This is reflected in the environmental effects section of our decision.

Section 7

[256] Section 7 identifies a number of "other matters" we should have particular regard to. Of relevance to this proposal are:

(a) kaitiakitanga:
(aa) the ethic of stewardship:
(b) the efficient use and development of natural and physical resources:
(c) the maintenance and enhancement of amenity values:
(d) intrinsic values of ecosystems:
(f) maintenance and enhancement of the quality of the environment:
(h) the protection of the habitat of trout and salmon.

[257] We have had regard to these matters in our decision. This is reflected in the environmental effects section of our decision and in regard to our findings with respect to the relevant objectives and policies we considered.

Section 8

[258] Section 8 requires us to take into account the principles of the Treaty of Waitangi when exercising functions and powers under the Act in relation to managing the use, development and protection of natural and physical resources.

[259] The Applicant has consulted with Aukaha throughout the consenting process, thereby enabling mana whenua to be actively involved in the assessment of the application. The Applicant has proposed additional mitigation measures and consent conditions to address outstanding concerns, and Kā Rūnaka now has a neutral position on the applications.

[260] Overall, we find that the application now recognises and provides for the relationship of Māori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga, subject to the imposition of relevant conditions of consent.

4.13 Consent duration

[261] We have considered consent duration and lapsing in section 3.10 of our decision. We have granted consent for 10 years to all ORC consent, except for the proposed water take which we have granted for 6 years.

4.14 Consent conditions

[262] Ms Collie put forward a suite of recommended ORC consent conditions as part of her Reply Statement.[109] We have generally adopted the Reply version of conditions except where otherwise discussed throughout this Decision. We have also amended the wording of some conditions so that they more easily interpreted and/or impose enforceable obligations on the consent holder.

[263] It is conceivable that the conditions imposed by us may contain errors. Accordingly, should the applicant or ORC identify any minor mistakes or defects in the attached conditions, then we are prepared to issue an amended schedule of conditions under s133A of the RMA correcting any such matters. Consequently, any minor mistakes or defects in the amended conditions should be brought to our attention prior to the end of the 20-working day period specified in section 133A of the RMA.

[109] Right of Reply Evidence statement Anita Collie, Proposed ORC Conditions, 22 July 2024

4.15 Determination

[264] We grant the resource consents sought by HML from the Otago Regional Council.

[265] Our reasons are detailed in the body of this Decision, but in summary they include:

(a) Potential adverse effects of the proposal are either minor; minimised to the extent practicable or are otherwise suitably avoided, remedied, mitigated or offset by the imposition of appropriate conditions of consent; and

(b) The proposal is consistent with the relevant statutory instruments.

Louise Taylor (Chair)

Craig Welsh

Rosalind Day-Cleavin

23 August 2024

Appendix A Appearances

Submission number	Submitter	Name	Role
CODC 170 ORC 7	Millers Flat Water Company	Tony Dons Alistair McIver	Chair of MFWC
CODC 465 & 467	Georgia Parker	Georgia Parker and Alan Parker	
CODC 171 & 167 ORC 5 & 8	Aukaha and Te Rūnanga o Ngāi Tahu	Tim Vial	Planner
CODC 171 & 167 ORC 5 & 8	Aukaha and Te Rūnanga o Ngāi Tahu	Tumai Cassidy	Cultural expert
CODC 171 & 167 ORC 5 & 8	Aukaha and Te Rūnanga o Ngāi Tahu	Dr Lynda Murchison	Planning advisor
CODC 471	Wendy Gunn and Cally Johnstone	Wendy Gunn and Cally Johnstone	
CODC 166 ORC 3	Graeme Young	Graeme Young and Christine Young	
CODC 173	Stephen Gullick	Stephen Gullick	
		Applicant's Team	
		Jeremy Brabant	Legal Counsel
		Anita Collie	Planner
		Andrew Hawkeswood	Applicant
		Barrie Wills	Ecology - Flora
		Mike Moore	Landscape
		Simon Johnstone	Applicant
		Barry MacDonell	Planner
		Nigel Goodhue	Air Quality
		Tony Heller	Hydrology and water quality
		*Ciaran Keogh	Contaminated land
		*Colin Macdiarmid	Geotech
		*Logan Copland	Transportation
		CODC Team	
		Olivia Stirling	Planner
		*Jamie Exeter	Noise expert
		*Jessica McKenzie	Landscape
		Tarryn Lines	Hearings Administrator
		Rachel Stanton	Administrator (CODC)
		ORC Team	
		Danielle Ter Humme	Planner
		*Alexandra Badenhop	Water & Environmental Management
		*Chris Bender	Air Quality
		*Mark Hamer	Fresh Water Ecologist

*denotes on-line appearance

RM230325 Land use consent to establish and operate a gold mine at Teviot Road, Millers Flat

General

1. The gold mining activity must be carried out in accordance with the plans and all information submitted with the application, further information, additional information provided at the hearing and the Master Plan Set dated 24/6/2024 attached to this consent.

2. If there are any inconsistencies between the information provided in the application and the conditions of this consent, the conditions of this consent will prevail.

3. The consent holder shall pay to the Central Otago District Council ("Council") all required administration charges fixed by the Council pursuant to section 36 of the Act in relation to:
    a. Administration, monitoring and inspection relating to this consent; and
    b. Charges authorised by regulations.

4. The duration of consent shall be 10 years from the commencement of the consent.

    Advice Note: *Water Permit RM23.819.02 authorises the taking and use of water for dewatering and dust control purposes associated with this consent. This water permit expires approximately 4 years prior to the expiry of this land use consent. The consent holder shall ensure that a renewal water permit is obtained prior to the expiry of RM.819.02, or the scale of operation shall be reduced to operate within permitted activity rules for taking and use of water.*

5. All personnel working on the site shall be briefed on the contents of this consent document and any documents referred to in the conditions of this consent. A copy of this consent and any documents referred to in the conditions of this consent shall be immediately accessible on site.

6. The area of mining shall not exceed 68 hectares and the maximum depth of excavation shall be 18 metres.

7. There shall be no more than 30 persons engaged in the activity at any one time. For the purposes of this condition, this limit excludes site visitors (such as delivery drivers), but includes all employees and contractors engaged by the Consent Holder.

8. The active work area, comprising the mine pit, internal haul roads and area where rehabilitation is underway shall be a maximum of 12 hectares at any one time. The active work area excludes stockpiling areas, land stabilised by vegetation, mulch or other equivalent method, workshop, internal vehicle parking and manoeuvring areas, site office, settling ponds, bunds and any other ancillary activities.

9. The hours of operation are:
    a. 07:00 and 19:00 Monday to Friday, and 07:00 to 13:00 on Saturdays, for all mining and processing activity on the site including associated heavy plant and truck movements. These works shall not occur on any Sunday or public holiday.

b. Unrestricted in respect of emergency works, machinery maintenance, dust control, dewatering, stormwater and water supply management.

10. The Consent Holder shall appoint a member of staff to be responsible for ensuring that the conditions of this consent are complied with (the "Compliance Officer"). The
    a. Compliance Officer shall be based on site a minimum of three days per week;
    b. Consent Holder shall ensure that there is a nominated cover person for the Compliance Officer if the Compliance Officer is unavailable (the "Nominated Cover Person"):
    c. Consent Holder shall provide the Compliance Officer's and the Nominated Cover Person's name and contact details to the Council (Monitoring@codc.govt.nz) and Aukaha (consents@aukaha.co.nz) prior to commencing mining on the site.

11. The consent holder shall erect a sign at the property boundary adjacent to the site access road, which provides a Consent Holder contact phone number to the general public.

Management Plans

12.

a. Prior to undertaking any mining activity authorised by this consent, the Consent Holder shall submit the following management plans to the Council (Monitoring@codc.govt.nz) for certification that the Management Plans are consistent with the conditions of this consent:
    i. Environmental Management Plan (EMP)
    ii. Site Emergency Management Plan (SEMP)
    iii. Wastewater Management Plan (WWMP)
    iv. Operational Noise Management Plan (ONMP)
    v. Erosion and Sediment Control Plan (ESCP)
    vi. Rehabilitation and Enhancement Management Plan (REMP)

    The documents in clauses i. – vi. above are collectively referred to as 'Management Plans' in this consent document. Specific requirements for each of these management plans are addressed in conditions 20-30, 35-37, and 42.

b. If the Consent Holder has not received a response from the Council within 15 working days of the date of submission for certification to Council of a management plan listed under this condition, the management plan shall be deemed certified.

    Advice Note: *The 15 working days shall not commence until, at the earliest, the consent has been granted and is free of any appeals.*

c. If the response from the Council is that they are not able to certify the management plans, such a response shall include detailed reasons with reference to the conditions of consent that the Council consider the Management Plan does not meet. The Consent Holder shall consider any reasons and recommendations provided by the Council, amend the management plan accordingly, and resubmit the management plan for certification to the Council. If the Consent Holder has not received a response from the Council within 5 working days of the date of resubmission for certification to Council of a management plan listed under this condition, the management plan shall be deemed certified.

13. The purpose of the Management Plans is to implement the relevant conditions of this consent. All Management Plans shall include (where relevant):
    a. The purpose/objective of the plan;
    b. Reference to the conditions of these consents that the management plan implements;
    c. How each of the relevant conditions have been given effect to;
    d. Procedures for implementing the relevant plan;
    e. Feedback mechanisms for adaptive management, including circumstances in which a material change to the management plan would be required;
    f. An organisational chart showing staff and contractor positions and responsibilities for plan implementation;
    g. Relevant training and induction procedures and training schedules; and
    h. Reporting procedures and format for providing the results of any monitoring or surveys required by the plan.

14. Where management plans require the input of an appropriately qualified professional, the Consent Holder shall engage an appropriately qualified person to prepare and / or amend the management plan.

15. The Consent Holder may amend a management plan at any time, in a way that is consistent with the conditions of this resource consent, to take into account:
    a. Any positive measure/s to ensure the stated objectives of the management plan are achieved.
    b. Any changes required to further reduce the potential for adverse effects;
    c. Any required actions identified as a result of monitoring.

16. Management plans shall be reviewed at least annually. The purpose of the review is to ensure that the Management Plan remains fit for purpose and to address any changes required to respond to any non-compliance or monitoring results in the previous year.

17. Any management plan amended in accordance with condition 15 or reviewed in accordance with condition 16 shall be provided to the Council (Monitoring@codc.govt.nz) within 15 working days of its review/amendment, for re-certification in accordance with Condition 12. Where a Management Plan is amended or reviewed, the activity may continue in accordance with the previously certified version of the Management Plan, until the revised version is certified by the Council.

18. A copy of the latest version of the certified Management Plans shall be kept on site at all times and all personnel shall be made aware of each Plan and their responsibilities under each Plan.

19. Subject to any other conditions of these consents, all activities shall be undertaken in accordance with the latest version of the certified Management Plans.

Environmental Management Plan

20. The Consent Holder shall operate the site in general accordance with an Environmental Management Plan (EMP). The Objective of the EMP is to provide an overview of operational procedures for compliance with the conditions of consent and to provide an integrated framework for other management plans relevant to the project. The EMP shall include at a minimum the following information:
    a. Staff roles and responsibilities for compliance with resource consent conditions;
    b. Staff training and induction;
    c. A summary of other management plans relevant to the project and how they relate to each other and compliance responsibilities;
    d. Identification of environmental risks and procedures for management of these;
    e. Incident response;
    f. Monitoring programmes and reporting of results;
    g. Communication protocols with Council, neighbours, and mana whenua;
    h. Complaints management procedures;
    i. Contingency measures in case of project abandonment.

21. A copy of the draft EMP shall be provided to Kāti Huirapa Rūnaka ki Puketeraki, Te Rūnanga o Ōtākou and Hokonui Rūnanga (Kā Rūnaka) via Aukaha. Kā Rūnaka shall be afforded at least 20 working days to provide feedback on the draft EMP. If no feedback is received from Kā Rūnaka in that timeframe the consent holder is not obliged to wait for feedback. When submitting the EMP for certification in accordance with condition 12, the consent holder shall also provide to Council (Monitoring@codc.govt.nz) a copy of any feedback from Kā Rūnaka, a description of amendments made in response to that feedback and any reasons for changes requested by Kā Rūnaka not being made by the Consent Holder.

Site Emergency Management Plan

22. The Consent Holder shall operate the site in general accordance with a Site Emergency Management Plan (SEMP).
    a. The SEMP shall detail the procedures to manage the risk from and contingency for:
        i. Fire
        ii. Forecast Extreme weather events
        iii. Flooding.
    b. The Consent Holder shall prepare the EMP in consultation with Fire and Emergency New Zealand (FENZ). A written record of consultation with FENZ shall be provided to enable certification of the EMP in accordance with condition 12.

23. Prior to the commencement of mining operations, including the erection of any buildings, sufficient water volume, pressure and flows in accordance with the New Zealand Fire Service Firefighting Water Supplies Code of Practice SNZ PAS 4509:2008 shall be provided.

Wastewater Management Plan

24. The Consent Holder shall operate the site in general accordance with a Wastewater Management Plan (WWMP). The objective of the WWMP is to detail the management of wastewater

infrastructure on the site to ensure that all wastewater is contained within appropriate facilities and removed from the site. The Wastewater Management Plan shall include:

a. Monitoring requirements for wastewater infrastructure.
b. Servicing and maintenance requirements and scheduling.
c. Emergency response in the event of a spill.

Erosion and Sediment Control Plan

25. The Consent Holder shall operate the site in accordance with an Erosion and Sediment Control Plan (ESCP). The objective of the ESCP is to ensure that all sediment-laden stormwater and dewatering water is discharged to land and to prevent discharge to surface waterbodies. The ESCP shall include:
    a. A map showing the location of all works;
    b. Plans showing the location of sediment control measures, on-site catchment boundaries, sources of runoff and discharge to land / infiltration areas;
    c. Measures to prevent discharges of sediment-laden water to surface water bodies and beyond the boundaries of the site;
    d. Drawings and specifications of sediment control measures;
    e. A methodology for stabilising the site entrance and exit points and any measures employed to prevent off-site tracking of sediment and other materials from the site;
    f. Inspection and maintenance procedures for the sediment control measures;
    g. Sampling procedures and protocols;
    h. A methodology for stabilising the site and appropriate decommissioning of all erosion and sediment control measures after works have been completed.

26. The ESCP shall be prepared by a suitably qualified person with experience in erosion and sediment control in accordance with Auckland Council Guideline Document GD05 *Erosion and sediment control guide for land disturbing activities in the Auckland region,* or equivalent industry guideline.

27. The ESCP may be staged. An ESCP relating to a future stage shall be certified by the Council in accordance with condition 12 prior to the commencement of work in that stage.

Dust suppression

28. The Consent Holder shall operate the site in general accordance with a Dust Management and Monitoring Plan (DMMP). Prior to commencing the activity, the Consent Holder shall provide to the Council (Monitoring@codc.govt.nz) written confirmation that the DMMP has been certified by Otago Regional Council in accordance with condition 8 of resource consent RM23.819.04.

Archaeological sites

29. The Consent Holder shall operate the site in general accordance with an Archaeological Management Plan (AMP) approved by Heritage New Zealand Pouhere Taonga. Prior to commencing the activity, the Consent Holder shall provide to the Council

(Monitoring@codc.govt.nz) written confirmation that the AMP has been approved by Heritage New Zealand Pouhere Taonga.

***Advice Note**: The Consent Holder holds Archaeological Authority (2024/438) in relation to this site and work, which provides authorisation for works in relation to archaeological sites under the Heritage New Zealand Pouhere Taonga Act 2014.*

30. The Consent Holder shall comply with the recommendations of the Archaeological Report, prepared by New Zealand Heritage Properties Ltd, Revision H dated March 2024, and any subsequent versions if modifications are required by Heritage New Zealand Pouhere Taonga. Any subsequent editions of the Archaeological Report shall be provided to Central Otago District Council (Monitoring@codc.govt.nz) within one month of the changes being made. The following key mitigation measures recommended by the Archaeological Report shall be implemented:
    a. Test trenching in the vicinity of the Tima Burn in accordance with section 9.2.2 and Figure 9-3 (page 112) shall be undertaken prior to the commencement of Stage 4;
    b. Archaeological monitoring shall be undertaken in accordance with section 9.2.2 and Figure 9-3 (page 112);
    c. The Applicant shall operate under the on-call protocol described in the AMP, when working in areas outside the archaeological monitoring areas described in Figure 9-3;
    d. Salvage and display of artefacts on the site in accordance with section 9.2.2, prior to the expiry of this resource consent;
    e. Erection of interpretation signs adjacent to the Clutha Gold Cycle Trail in accordance with section 9.2.2, prior to the expiry of this resource consent.

31. Manawhenua representatives from Kāti Huirapa Rūnaka ki Puketeraki, Te Rūnanga o Ōtākou and Hokonui Rūnanga, shall be invited to attend test trenching works recommended by the Archaeological Report, which forms part of the Master Plan Set referenced in condition 1. Manawhenua shall be given at least 10 working days notice of the start date of the test trenching.

Annual work program and reporting

32. An annual work program for the following calendar year shall be prepared and submitted to the Council (Monitoring@codc.govt.nz) by 1 December annually. An annual work program shall be provided prior to the commencement of mining. The annual work program for the first year of operation may be submitted at any time prior to the commencement of mining.
    a. The annual work program shall include:
        i. maps highlighting the planned extent of mining activity with associated GPS coordinates, including planned areas of mining and rehabilitation;
        ii. estimated area and depth of earthworks to be undertaken;
        iii. an estimate of the current active work area in accordance with condition 8;
        iv. a programme for the construction and disestablishment of any bunds; and
        v. the progression of the project in relation to planned staging.
    b. Any substantial departure from the annual work program shall be advised to the Council (Monitoring@codc.govt.nz) with an updated annual work programme. For the purposes of this condition, a substantial departure is defined as a variation of more than 10% in the

area of earthworks, depth of earthworks, or length of bunding to be constructed and/or disestablished.

33. A record of activity undertaken in accordance with this consent for the previous calendar year shall be submitted to the Council (Monitoring@codc.govt.nz) by 28 February annually. The report shall at a minimum include:
    a. Records showing the location of activity in the previous calendar year, including the matters listed in condition 32(a)(i) – (iv);
    b. A record of any complaints received, including the information listed in condition 34;
    c. A description and analysis of any unexpected adverse effects that have arisen as a result of activities within the last 12 months, the steps taken to address those adverse effects and measures implemented to avoid a repeat occurrence of them.

Complaints

34. The Consent Holder shall maintain a record of any complaints alleging adverse effects arising from, or related to, the works activities authorised by this consent; the "Complaints Register".
    a. The Complaints Register shall include:
        i. The date, time, location, and nature of the complaint;
        ii. The date, time, location and nature of any incident related to the complaint;
        iii. The name, phone number, email and address of the complainant, unless the complainant elects not to supply this information;
        iv. Details of actions taken by Consent Holder to remedy the situation, including actions taken on site to remedy the issue, correspondence with the complainant and any policies or methods put in place to avoid or mitigate the problem occurring again;
    b. The Complaints Register shall be provided to Council on request and annually as required in condition 33;
    c. Upon receipt of any complaint that alleges non-compliance with the conditions of this consent, the Consent Holder shall promptly investigate the complaint, and take necessary action to ensure the activity is compliant with the conditions of this consent.

Closure and rehabilitation

35. The Consent Holder shall operate the site in general accordance with a Rehabilitation and Enhancement Management Plan (REMP). The objectives of the Rehabilitation and Enhancement Management Plan shall be to:
    a. Detail procedures for closure and disestablishment of the mine;
    b. Ensure progressive rehabilitation of the site to agricultural use; and
    c. Provide for an Ecological Enhancement Project (EEP) in the surrounding area, either adjoining the Tima Burn or adjoining the Clutha / Mata-au or on the Consent Holder's land adjacent to the Clutha / Mata-au margin.

36. The Rehabilitation and Enhancement Management Plan shall include:
    a. Procedures for decommissioning of the mine infrastructure and removal of all structures, machinery and plant from the site;

b. Methods to preserve the topsoil resource and topsoil health;
c. The final planned surface contour of land following completion of mining, including any on-site drainage patterns. The final site contour is to integrate with the surrounding landform and restore the site to its pre-existing landform, except that the Council green waste tip on Section 92 Block VIII Benger SD is to be filled in and the tailings dump on Section 90 Block VIII Benger SD is to be removed;
d. Methods and timeframes for re-grassing and restoring agricultural productivity of the mined land;
e. Specification of an EEP comprising at least 3,000m^2 of native planting in a non-agricultural location near to the site and adjoining the Tima Burn. Should the Consent Holder be unable to obtain landowner permission for planting adjoining the Tima Burn, this condition may be complied with by planting at least 3,000m^2 of natives in an alternative location near to the site adjoining the Clutha / Mata-au or on the Consent Holder's land adjacent to the Clutha / Mata-au margin;
f. A description of the timeline for the EEP, whereby the first half shall be undertaken at the first available planting season after Stage 1 and the second half shall be undertaken at the first available planting season after Stage 2 of the mining operations.

37. A copy of the draft REMP shall be provided to Kāti Huirapa Rūnaka ki Puketeraki, Te Rūnanga o Ōtākou and Hokonui Rūnanga (Kā Rūnaka) via Aukaha. Kā Rūnaka shall be afforded at least 20 working days to provide feedback on the draft REMP. If no feedback is received from Kā Rūnaka in that timeframe the consent holder is not obliged to wait for feedback. When submitting the REMP for certification in accordance with condition 12, the consent holder shall also provide to Council (Monitoring@codc.govt.nz) a copy of any feedback from Kā Rūnaka, a description of amendments made in response to that feedback and any reasons for changes requested by Kā Rūnaka and not made by the Consent Holder.

38. At the completion of mining and before the expiry of this consent, at the consent holder's cost, the consent holder shall arrange for a section 108(2)(d) Resource Management Act 1991 covenant in favour of Council which is to be registered on a parcel of land on, or adjacent to, the mine footprint. The covenant shall provide for the following:
    a. A minimum area of 3,000m^2 to be planted with indigenous vegetation as an EEP in accordance with conditions 35(c) and 36(e). The EEP area shall be fenced to exclude livestock, and no pastoral farming shall occur within the fenced area;
    b. The protection of the planting required by (a) in perpetuity. No structures may be established, or indigenous vegetation removed from the planting area marked out in the covenanted area;
    c. The consent holder shall submit the plans for the EEP to the Council (monitoring@codc.co.nz) for certification that it is consistent with conditions 38(a) and 36(e) above.
    d. The plans for the planting project used shall be provided to Kāti Huirapa Rūnaka ki Puketeraki, Te Rūnanga o Ōtākou and Hokonui Rūnanga (Kā Rūnaka) via Aukaha. Kā Rūnaka shall be afforded at least 20 working days to provide feedback on the planting plans. If no feedback is received from Kā Rūnaka in that timeframe the consent holder is not obliged to wait for feedback. When submitting the plans for the enhancement project for certification

in accordance with condition 38(c), the consent holder shall also provide to Council (Monitoring@codc.govt.nz) a copy of any feedback from Kā Rūnaka, a description of amendments made in response to that feedback and any reasons for changes requested by Kā Rūnaka and not made by the Consent Holder.

39. All mine closure, rehabilitation of the entire site and ecological enhancement projects described in the REMP shall be completed prior to this resource consent expiring.

Noise and vibration

40. Subject to the following, all activities shall be conducted to ensure the following noise limits are not exceeded at any point within a notional boundary or at any point within the Residential Resource Area.
    a. On any day 07:00 to 22:00: 55 dBA L_{10}
    b. 22:00 to 07:00 the following day: 40 dBA L_{10} and 70 dBA L_{max}.

    This condition does not apply to the notional boundary of any dwelling:

    i. owned by the consent holder,
    ii. owned by Jacks Ridge Limited, or
    iii. located within the mine site.

41. Site-based trucks, plant, and machinery shall not be fitted with tonal reversing alarms. Broadband reversing alarms are permitted.

42. All vibration generated on the site shall comply with the guideline vibration values of DIN 4150-3:1999 Vibrations in buildings – Part 3: Effects on structures.

43. The consent holder shall prepare an Operational Noise Management Plan (ONMP). All works shall give effect to the ONMP. The objectives of the ONMP are to set out the methods and procedures required to adopt the best practicable option for minimising noise and vibration emissions from all aspects of the consented activities, and to ensure that noise and vibration consistently complies with the consented limits. The ONMP shall include:
    a. The consented noise and vibration limits;
    b. Requirements and procedures for noise monitoring to ensure consistent compliance with the noise limits in this consent;
    c. Procedures for communicating effectively with neighbours;
    d. Procedures for receiving and responding to complaints about noise and vibration;
    e. Procedures for staff and contractors to follow to minimise noise and vibration emissions;
    f. Practicable management and mitigation measures for complying with the consented limits and reducing noise and vibration effects at the neighbouring notional boundaries.

Bunds

44. Bunding shall be established in accordance with the Master Plan Set dated 24 June 2024. The consent holder shall ensure that prior to the commencement of mining in each stage or sub-stage,

bunding is established in the locations shown on the specific sheet numbers referenced in the table below. Bunds may be disestablished in accordance with the staging noted on the site plans (Master Plan Set dated 24/6/2024).

Mining Stage	Sheet number showing locations of bunds required for the stage
1	2
2	3
3A	4
3B	5
4	6
4, after reinstatement of the cycle trail to the existing alignment	8

45. The height of these bunds shall be no less than 3 metres except for the bund in stage 2, which shall be 4 metres high along the northern boundary of the site, and at least 300m down the north-western side of stage 2 and 700m down the north-eastern side of stage 2 (sheet 1 dated 18/6/2024).

    Advice note: *Minimum 4m high bunds as specified above are required for the mitigation of noise effects, as described in Hegley Acoustics Report 22048 Proposed Alluvial Mining Millers Flat Assessment of Noise Effects, dated 20 March 2023.*

46. Bunding shall be grassed and irrigation shall be implemented as necessary to ensure successful establishment of grass.

Lightspill

47. No activities are permitted to result in greater than 10 lux spill (horizontal and vertical) of light onto any adjoining property or road, measured at the boundary of a road or the notional boundary of a neighbouring property. The amount of light that may be spilled onto a neighbouring property may be increased by not more than 100%, in cases where the activity on that neighbouring property is not residential.

48. Prior to the commencement of mining using lighting, a suitably qualified person shall measure and verify that lighting complies with Condition 47 of this consent. A copy of the certification shall be held on site and provided to Council on request.

Diesel Storage

49. Prior to the commencement of work, the Consent Holder shall ensure that diesel is stored on-site within a containment facility that adheres to the Health and Safety at Work (Hazardous Substances) Regulations 2017, and shall demonstrate that:
    a. an industry standard hose and filler nozzle with automatic cut-off is fitted for refuelling equipment;

b. an additional shutoff valve is fitted to the handle, and a remote stop push button and cable is accessible at the filler nozzle location to stop the pump at the bulk tank;
c. the bulk onshore fuel tank is double skinned or bunded and is located in a safely accessible location, in an area which is setback 50 metres from water bodies and located above 1 in 100- year flood levels, as shown on the ORC Mapped Flood Hazard on the GeoSolve drawing 'Flood Hazard Assessment Site Plan' (included in the Master Plan Set dated 24/6/24) ;
d. the Consent Authority is provided with written notice and a plan which shows the location of the fuel tank prior to the tank be located;
e. spill kits are located at the tank; and
f. all staff receive training in the location and use of spill kits.

50. In the event of a spill of fuel or any other contaminants, the consent holder shall clean up the spill as soon as practicable and take measures to prevent a recurrence.

51. The Consent Holder shall inform the Central Otago District Council (Monitoring@codc.govt.nz) and Millers Flat Water Company Limited (mfwater@gmail.com) within 24 hours of any spill event greater than 4 litres and shall provide the following information:
    a. The date, time, location and estimated volume of the spill;
    b. The cause of the spill;
    c. The type of contaminant(s) spilled;
    d. Clean up procedures undertaken;
    e. Details of the steps taken to control and remediate the effects of the spill on the receiving environment; and
    f. An assessment of any potential effects of the spill and measures to be undertaken to prevent a recurrence; and
    g. A copy of any expert advice obtained by the consent holder in responding to the spill.

Transport

52. The vehicle accesses shall be designed in general accordance with a 'Diagram D' accessway as per the Appendix 5B of the NZTA Planning Policy Manual, and as generally shown in the Abley concept drawings dated 23 April 2024.

    Advice note: *Approval is required by the Central Otago District Council for the upgrade of any accessway prior to construction in accordance with the CODC Roading Bylaw 2023.*

53. Prior to the commencement of mining activity, the southern vehicle access shall be upgraded in accordance with approved engineering plans. The northern vehicle access shall be upgraded in accordance with approved engineering plans prior to the commencement of stage 3.

54. Heavy vehicle movements associated with the mine shall be scheduled so they do not pass Millers Flat School between 8am and 9am and 2pm and 3pm on any school day.

    Advice note*: If transportation of machinery into or out of the site is anticipated to affect the normal operating conditions of the transport network, the Consent Holder may require a traffic management plan. The consent holder shall verify that any requirements of the CODC Roading*

Bylaw 2023 are met, and that any necessary permits are obtained from the New Zealand Transport Agency / Waka Kotahi.

Water Supply

55. The Consent Holder shall not undertake any works that impact the water infrastructure identified in Figure 1 below unless the Consent Holder has received written consent from the Millers Flat Water Company to do so and written confirmation from the Millers Flat Water Company that a suitable alternative has been agreed for the provision of water infrastructure for any water users that are affected.

***Advice note**: Any alternative water supply to affected water users referenced in condition 55 will be provided at the Consent Holders cost.*

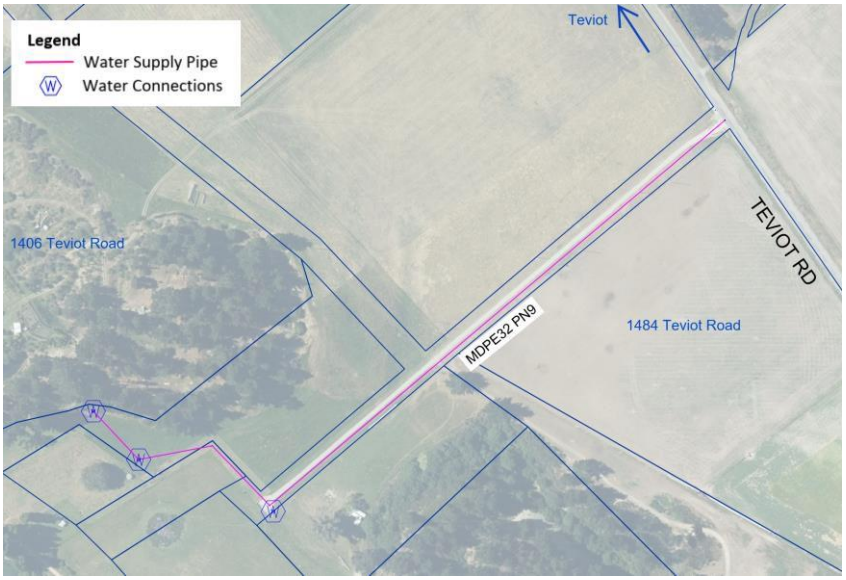


Figure 1 Millers Flat Water Company infrastructure within the mine footprint.

Landscape

56. Gravel stockpiles shall be no higher than 7 metres above natural ground level.

57. Areas where mining is complete shall be reinstated as soon as practicable to blend naturally with surrounding contours and shall be established in pasture and irrigated as necessary to ensure successful establishment of grass.

58. The mine pit shall be set back a minimum of 20 metres from the typical wetted channel of the Tima Burn and the Clutha River / Mata-au.
    a. The consent holder shall establish survey pegs to demarcate the 20 metre setback to ensure compliance with this condition.
    b. Survey pegs shall be established prior to earthworks occurring within 100 metres of a watercourse.
    c. Survey pegs are not required and/or may be removed:
        i. when a bund is located between the earthworks and the watercourse, or

ii. when earthworks are further than 100m from the watercourse.

59. All containers and buildings on the site are to be finished in the same colour, which shall be Resene Iron Sand (LRV – 9%). The container shelter fabric shall be a dark green colour to be visually recessive in the landscape.

Public access

60. Prior to restricting public access to the Clutha River / Mata-au via the paper road adjacent to 1534 Teviot Road, Millers Flat an alternative public access route to the Clutha River / Mata-au shall shallbe provided within 1km of the existing location and constructed to a similar standard. Signage shall be established to inform the public of the duration of the closure and the location of the alternative access.

61. The consent holder shall ensure that mining work does not prevent public access to the Clutha Gold cycle trail. The cycle trail may be temporarily diverted in accordance with the Master Plan Set dated 21/6/2024, to enable ongoing public use and access. Prior to the relocation of the cycle trail, signage shall be established to inform the public of the duration of the relocation of the cycle trail, and the location of the alternative route.

***Advice note**: Any signage on the site should be designed and sited to comply with Rule 4.7.6H of the Central Otago District Plan, or resource consent sought. This resource consent does not authorise any non-compliance with District plan signage standards.*

Geotechnical and Flood Hazard

62. The Consent Holder shall manage stability of pit slopes throughout the duration of this land use consent when mining operations are taking place, by ensuring that:
    a. For the initial pit and pond excavation, the preliminary slope configuration shall be constructed with an overall slope angle not exceeding 45°.
    b. Pit crests and batter slopes adjacent to Teviot Road shall be set out by survey to avoid over-excavation.
    c. Surface water, including both stormwater and on-site water courses, shall be managed to minimise infiltration into ground behind the pit slopes.
    d. A setback of 7.5 m (horizontally) from the crest of the mine pit shall be maintained from Teviot Road (as defined by the road reserve boundaries) and the electrical transmission network.
    e. The above restrictions apply until such time as Council is advised in writing by the Consent Holder that following an assessment and associated report being completed by a suitably qualified geotechnical specialist that modified controls, as certified in that report, will adequately provide for pit and pond stability.

63. In the event that a Red Rainfall or Flooding Warning is issued by MetService that is relevant for the site, any open parts of the mine pit shown to be within the ORC Mapped Flood Hazard on the GeoSolve drawing ‘Flood Hazard Assessment Site Plan’ (included in the Master Plan Set dated

24/6/24) are buttressed to as shallow a batter angle as reasonably practical, prior to the event occurring.

Bond

64. Within six months of the commencement of this resource consent, the Consent Holder shall enter into an enforceable agreement acceptable to the Council that provides a bond, pursuant to Sections 108(2)(b) and 108A of the Resource Management Act 1991.

65. The purpose of the bond is to secure, in the event of any default by the consent holder:
    a. Compliance with all the conditions of this consent that address site rehabilitation;
    b. Compliance with the methodology for stabilising the site and appropriate decommissioning of all erosion and sediment control measures after works have been completed in accordance with the certified ESCP;
    c. The completion of rehabilitation and closure in accordance with the certified REMP; and
    d. Any future monitoring and maintenance obligations of the consent holder as required by the REMP including:
        i. Site inspections and remediation;
        ii. Final cover and landform requirements.

66. The bond shall be a cash bond or bank bond provided by a registered trading bank of New Zealand, acceptable to the Council. The guarantor shall bind itself to pay up to the bond quantum for the carrying out and completion of all obligations of the Consent Holder under the bond.

67. The Consent Holder shall provide a report to the Council which specifies all matters covered by Condition 65 of this consent and identifies the matters to be bonded for, all assumptions, costs, and risk elements that inform the recommended bond amount.

68. If the Council do not within fifteen working days give notice to accept the bond amount derived in accordance with Conditions 67, it will at the consent holder's cost peer review the report prepared in accordance with Condition 67 and within 30 days of that notice report, confirm the alternative amount of the bond.

69. If the Consent Holder and the Council cannot agree on the terms of the bond, including the bond amount and any revised bond, the dispute shall be resolved through an agreed dispute resolution process or referred to arbitration at the cost of the Consent Holder. This condition relates to the setting of the bond amount in accordance with Condition 67, and the revised bond amount in accordance with Condition 68.
70. On the fifth anniversary of this consent being given effect to and every five years thereafter, the Consent Holder shall provide a report to the Council which addresses whether the bond quantum should be revised. The purpose of the adjustment is to reflect changes in the risk profile of the alluvial gold mine or to the Consumer Price Index. The Council may peer review the report and shall respond within three months of receipt of the report on the appropriateness of any proposed revised bond quantum.

71. If the consent is transferred in part or whole to another party or person, the bond lodged by the transferor shall be retained until any outstanding work at the date of transfer is completed or a replacement bond is entered into by the transferee, to ensure compliance with conditions of the consent unless the Council is satisfied adequate provisions have been made to transfer the liability to the new Consent Holder.

72. The Council shall release the bond once the site has been deemed to be closed by the Council following completion of the actions referred to in Condition 39.

73. All reasonable costs of, and incidental to, the preparation of documentation to meet Conditions 64 to 72, including the consent authorities' costs, shall be met by the Consent Holder.

Review of consents

74. The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions of this consent during the period of three months either side of the date of granting of this consent each year, or within two months of any enforcement action taken by the Consent Authority in relation to the exercise of this consent, or on receiving monitoring results, for the purpose of:
    a. Determining whether the conditions of this consent are adequate to deal with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage, or which becomes evident after the date of commencement of the consent; or
    b. Reviewing the frequency of monitoring or reporting required under this consent to alter these; and
    c. To ensure that any required management plan gives effect to the conditions of these consents.

RM23.819.01 – Land Use Consent to construct a bore for the purpose of excavating a mine pit that intercepts groundwater.

Conditions	
1.	This permit shall be carried out in accordance with the plans and all information submitted with the application, further information, additional information provided at the hearing and the Master Plan Set dated 24/6/2024. If there are any inconsistencies between the above information and the conditions of this consent, the conditions of this consent will prevail.
2.	This consent shall be exercised in conjunction with Water Permit RM23.819.02, Discharge Permit RM23.819.03 and Discharge Permit RM23.819.04.
3.	The mine pit shall be set back a minimum of 20 metres from the banks of the Tima Burn and the Clutha River / Mata-au. The setback shall be measured from the typical wetted channel of the Tima Burn, and the eastern cadastral boundary of the Clutha/Mata-au marginal strip: a. The consent holder shall establish survey pegs to demarcate the 20-metre setback to ensure compliance with this condition; b. Survey pegs shall be established prior to establishment of the mine pit within 100 metres of a watercourse; c. Survey pegs are not required and/or may be removed: i. when a bund is located between the mine pit and the watercourse; or ii. when the mine pit is further than 100m from the watercourse.
4.	All personnel working on the site shall be briefed on the contents of this consent document and any documents referred to in the conditions of this consent. A copy of this consent and any documents referred to in the conditions of this consent shall be immediately accessible on site.
5.	The duration of consent shall be 10 years from the commencement of the consent.
6.	The Consent Holder shall appoint a member of staff to be responsible for ensuring that the conditions of this consent are complied with; the "Compliance Officer". a. The Compliance Officer shall be based on site a minimum of three days per week; b. The Consent Holder shall ensure that there is a nominated cover person for the Compliance Officer if the Compliance Officer is unavailable; the "Nominated Cover Person"; c. The Consent Holder shall provide the Compliance Officer's and the Nominated Cover Person's name and contact details to the Consent Authority~~)~~ and Aukaha (consents@aukaha.co.nz) prior to commencing mining on the site.
Management Plan	
7.	The Consent Holder shall submit a Water Management Plan (WMP) to the Consent Authority at least 15 working days prior to the exercise of this consent for certification that it documents, as a minimum:

	a. The Objective of the WMP is to implement the conditions of the consent; b. The conditions of consent that the WMP implements and how each condition is given effect to; c. A plan and description of the groundwater quality and level monitoring network as required under the conditions of this consent and associated consents RM23.819.02 and RM23.819.03; d. A description and methodology for determining the natural flow of the Tima Burn at the Teviot Bridge and ongoing monitoring of the flow of the Tima Burn; e. A description of the Tima Burn augmentation design in accordance with the conditions of RM23.819.02, including the location of the augmentation take and discharge point, circumstances which trigger the commencement or cessation of augmentation, oxygenation of augmentation water, procedure for monitoring dissolved oxygen, and process for determining the rate of augmentation; f. A description for the process of providing alternative water supply to neighbouring bore owners in accordance with the conditions of RM23.819.02; g. Any other mitigation measures to be employed to minimise environmental effects on groundwater or adhere to best practice in relation to groundwater protection, including mobile refuelling procedures, spill responses and minimum maintenance frequency for all machinery operated by the Consent Holder and working on the site; h. Relevant monitoring and reporting requirements.
8.	a. Activities authorised by this consent shall not commence until the Consent Holder has received written certification that the WMP is consistent with the conditions of this consent. Notwithstanding this, the WMP is deemed certified, and works may proceed if the Consent Holder has not received a response from the Consent Authority within 15 working days of the date of the submission of the WMP. b. If the response from the Council is that they are not able to certify the management plans, such a response shall include detailed reasons with reference to the conditions of consent that the Council consider the Management Plan does not meet. The Consent Holder shall consider any reasons and recommendations provided by the Council, amend the management plan accordingly, and resubmit the management plan for certification to the Council. If the Consent Holder has not received a response from the Council within 5 working days of the date of resubmission for certification to Council of a management plan listed under this condition, the management plan shall be deemed certified.
9.	The WMP shall be reviewed at least annually. The purpose of the review is to ensure that the WMP remains fit for purpose and to address any changes required to respond to any non-compliance or monitoring results in the previous year.
10.	The Consent Holder may amend the WMP at any time, in a way that is consistent with the conditions of this resource consent, to take into account: a. Any positive measure/s to ensure the stated objectives of the management plan are achieved; b. Any changes required to further reduce the potential for adverse effects; c. Any required actions identified as a result of monitoring.

11.	Any WMP amended in accordance with condition 10 or reviewed in accordance with condition 9 shall be provided to the Consent Authority within 15 working days of its review/amendment, for re-certification in accordance with Conditions 7 and 8. Where the WMP is amended or reviewed, the activity may continue in accordance with the previously certified version of the WMP, until the revised version is certified by the Council.
12.	A copy of the latest version of the certified Management Plans shall be kept on site at all times. Subject to any other conditions of this consent and associated consents RM23.819.02, RM23.819.03 and RM23.819.04, all activities shall be undertaken in accordance with the latest version of the certified WMP.
13.	A copy of the draft WMP shall be provided to Kāti Huirapa Rūnaka ki Puketeraki, Te Rūnanga o Ōtākou and Hokonui Rūnanga (Kā Rūnaka) via Aukaha. Kā Rūnaka shall be afforded at least 20 working days to provide feedback on the draft WMP. If no feedback is received from Kā Rūnaka in that timeframe the consent holder is not obliged to wait for feedback. When submitting the WMP for certification in accordance with condition 7, the consent holder shall also provide to the Consent Authority a copy of any feedback from Kā Rūnaka, a description of amendments made in response to that feedback and any reasons for changes requested by Kā Rūnaka not being made by the Consent Holder.
Performance Standards	
14.	Any erosion, scour or instability of the pit that results in exceedance of the extent shown in the consent application shall be reinstated or remedied by the Consent Holder.
15.	In the event of a discharge of unauthorised contaminants to water or to land in a manner that may enter water, including but not limited to fuel, hydraulic fluid, contaminated soil or leachate, the Consent Holder shall: a. Undertake all practicable measures as soon as possible to contain the contaminant; b. Ensure that the contaminants and any material used to contain it are removed from the site and disposed of at a facility authorised to receive the material; c. Immediately notify the Consent Authority, Aukaha and Millers Flat Water Company of the spill or contamination and of the actions taken, and to be taken, to remediate and mitigate any adverse environmental effects; d. Immediately have a suitably qualified water quality expert assess the risk of the spill to surrounding bores and provide recommendations on the measures to be taken to address any identified risk; e. Provide a copy of the risk assessment carried out under Condition 15d above to the Consent Authority, Aukaha and Millers Flat Water Company within one week and implement all recommendations in the risk assessment.
16.	The Consent Holder shall ensure that: a. All machinery to be operated within exposed groundwater on the site is thoroughly cleaned of vegetation (e.g. weeds), seeds or contaminants prior to entering the site. The cleaning of machinery shall not occur within 20 metres of the bank of any waterbody or the edge of any wetland; b. All machinery shall be regularly maintained to ensure that no contaminants (including but not limited to oil, petrol, diesel, hydraulic fluid) shall be released

	into water, or to land where it may enter water, from equipment being used for the works; c. All contaminant storage or re-fuelling areas (other than areas where mobile re-fuelling occurs) are bunded or contained in such a manner so as to prevent the discharge of contaminants to water or to land where it may enter water; d. No machinery, except the dredge, shall be maintained, cleaned, stored or refuelled within 20 metres of the bank of any waterbody or exposed groundwater; e. Permanent storage of fuel and lubricants shall not be located within 50 metres of the bank of any waterbody or exposed groundwater; *Advice Note: Approved storage of hazardous substances is specified in the Health and Safety at Work (Hazardous Substances) Regulations 2017.* f. Mobile refuelling occurs in accordance with industry best practice, a drip tray is always used for such refuelling, and spill kits are available at the mobile refuelling locations.
17.	The Consent Holder shall maintain a record of any complaints alleging adverse effects arising from, or related to, the works activities authorised by this consent; the "Complaints Register". a. The Complaints Register shall include: i. The date, time, location, and nature of the complaint; ii. The date, time, location and nature of any incident related to the complaint; iii. The name, phone number, email and address of the complainant, unless the complainant elects not to supply this information; iv. Details of actions taken by Consent Holder to remedy the situation, including actions taken on site to remedy the issue, correspondence with the complainant and any policies or methods put in place to avoid or mitigate the problem occurring again. b. The Complaints Register shall be provided to Council on request and annually as required in condition 18. c. Upon receipt of any complaint that alleges non-compliance with the conditions of this consent, the Consent Holder shall promptly investigate the complaint, and take necessary action to ensure the activity is compliant with the conditions of this consent.
18.	The Consent Holder shall submit an Annual Groundwater Report by the 31st of July each year which includes the following: a. Details of any affected bores and alternative water supply provided in accordance with condition 7 of RM23.819.02; b. Details of any augmentation of the Tima Burn undertaken in accordance with condition 8 of RM23.819.02; c. Results of groundwater level monitoring required by condition 11 of RM23.819.02; d. Results of the water quality monitoring carried out in accordance with Conditions 12 and 13 of RM23.819.03; e. An analysis of the water quality data collected in accordance with Conditions 12 and 13 of RM23.819.03, prepared by a suitably qualified and experienced person,

	assessing whether the data shows that the Consent Holder's activities are adversely impacting groundwater quality or any drinking water supply; f. A record of any complaints received in relation to the compliance with the conditions of this consent, including the information listed in condition 18.
Review	
19.	The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions of this consent within 3 months of each anniversary of the commencement of this consent, or within two months of any enforcement action taken by the Consent Authority in relation to the exercise of this consent, or on receiving monitoring results, for the purpose of: a. Determining whether the conditions of this consent are adequate to deal with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage, or which becomes evident after the date of commencement of the consent; or b. Ensuring that any required management plan gives effect to the conditions of this consent; c. Ensuring the conditions of this consent are consistent with any National Environmental Standard or National Policy Statement.
Notes to Consent Holder	
1.	*If you require a replacement consent upon the expiry date of this consent, any new application should be lodged at least 6 months prior to the expiry date of this consent. Applying at least 6 months before the expiry date may enable you to continue to exercise this consent under section 124 of the Resource Management Act 1991 until a decision is made on the replacement application (and any appeals are determined).*
2.	*The Consent Holder is responsible for obtaining all other necessary consents, permits, and licences, including those under the Building Act 2004, the Biosecurity Act 1993, the Conservation Act 1987, and the Heritage New Zealand Pouhere Taonga Act 2014. This consent does not remove the need to comply with all other applicable Acts (including the Property Law Act 2007 and the Health and Safety at Work Act 2015), regulations, relevant Bylaws, and rules of law. This consent does not constitute building consent approval. Please check whether a building consent is required under the Building Act 2004.*
3.	*Where information is required to be provided to the Consent Authority this is provided in writing to compliance@orc.govt.nz, and the email heading is to reference RM23.819.01 and the condition/s the information relates to.*
4.	*The Consent Holder will be required to pay the Consent Authority an administration and monitoring charge to recover the actual and reasonable costs incurred to ensure ongoing compliance with the conditions attached to this consent, collected in accordance with Section 36 of the Resource Management Act 1991.*
5.	*It is the responsibility of the Consent Holder to ensure that the water abstracted under this resource consent is of suitable quality for its intended use. Where water is to be used for human consumption, the consent holder should have the water tested prior to use and should discuss the water testing and treatment requirements with a representative of the Ministry of Health and should consider the New Zealand Drinking Water Standards.*

6.	*The Consent Holder is advised that water supplied for human consumption may also need to meet the requirements of the Health Act 1956, the Drinking Water Standards for New Zealand 2005 (Revised 2018), and any other Ministry of Health requirements.*

RM23.819.02 – Water Permit to take and use groundwater for the purpose of transient mine pit dewatering, augmentation purposes, processing, dust suppression and rehabilitation

Specific	
1.	The take and use of groundwater for the purpose of transient mine pit dewatering, augmentation purposes, processing, dust suppression and rehabilitation shall be carried out in accordance with the plans and all information submitted with the application, further information, additional information provided at the hearing and the Master Plan Set dated 24/6/2024. If there are any inconsistencies between the above information and the conditions of this consent, the conditions of this consent will prevail.
2.	This consent shall be exercised in conjunction with Land Use Consent RM23.819.01, Discharge Permit RM23.819.03 and Discharge Permit RM23.819.04.
3.	All personnel working on the site shall be briefed on the contents of this consent document and any documents referred to in the conditions of this consent. A copy of this consent and any documents referred to in the conditions of this consent shall be immediately accessible on site.
4.	The duration of consent shall be 6 years from the commencement of the consent.
5.	The Consent Holder shall appoint a member of staff to be responsible for ensuring that the conditions of this consent are complied with; the "Compliance Officer": a. The Compliance Officer shall be based on site a minimum of three days per week: b. The Consent Holder shall ensure that there is a nominated cover person for the Compliance Officer if the Compliance Officer is unavailable; the "Nominated Cover Person":. c. The Consent Holder shall provide the Compliance Officer's and the Nominated Cover Person's name and contact details to the Consent Authority and Aukaha (consents@aukaha.co.nz) prior to commencing mining on the site.
6.	The rate and quantity of abstraction shall not exceed: a. 124.8 litres per second; b. 10,783 cubic metres per day; c. 222,394 cubic metres per month; and d. 1,967,846 cubic metres between 1 July of any year and ending 30 June of the following year as a rolling average calculated over three consecutive years.
Neighbouring Wells	
7.	a. Prior to commencing dewatering in accordance with this consent, the consent holder shall, subject to the owner's agreement, inspect the wells listed in condition 7b (the "water wells") and record:

	i. the static water level from the surface reference point, and ii. the depth to the top of the pump or suction intake from the surface reference point. The difference between these two measurements shall be recorded as the operational water level. b. For the purposes of this condition the water wells are: G43/0183, G43/0219, CD13/0101, G43/0193, G43/0142, G43/0187, G43/0132, G44/0132, G43/0079, G44/0041, G44/0111, G44/0040, G43/0184 and G43/0185. c. Regular monitoring of groundwater levels (static water table) in piezometers at the mine/site boundaries shall occur at least weekly, starting one month before any HML dewatering activity, using a standard dip meter. Measurements shall be referenced to a surface point (usually the top of the casing). All recorded water levels shall be associated with their respective piezometer numbers with data being stored in a spreadsheet for analysis and reporting to the Consent Authority. Water level monitoring shall continue even after mining activities are completed until steady state conditions are reached in the aquifer. d. When any water level monitoring piezometer has exceeded 0.2 m drawdown as a result of dewatering authorised by this consent, the most adjacent water wells that have been initially inspected, shall be monitored to record static water level at least on a weekly basis. e. When static water level in any water well reduces by more than 0.2 m as a result of dewatering authorised by this consent, that water well shall be monitored to record static water level at least on a daily basis. The monitoring results will be provided to a suitably qualified hydrologist who will extrapolate the progression of drawdown effects from dewatering on the affected water well. f. If the data indicates that the drawdown effects on any water well will exceed that wells operational water level within the next 20 days, the Consent Holder shall advise the well owner (the "affected well owner"). g. If the affected well owner requests, the Consent Holder shall provide the affected well owner with an alternative water supply of at least 2,000 litres per day for each household, starting at least 48 hours prior to when drawdown effects on the water well are projected to exceed that wells operational water level in accordance with condition 7e. The alternative water supply shall be provided until such time as the operational water level is no longer exceeded as a result of dewatering authorised by this consent. All costs shall be borne by the Consent Holder. h. Monitoring and mitigation required by clauses c-g. of this condition are not required where the well owner refuses permission for the Consent Holder to undertake the measurements in clause a.
Tima Burn	
8.	During any period of groundwater abstraction for mine dewatering purposes and where any water table level decline as a result of mine dewatering exceeds 0.2 m adjacent to the reach of the Tima Burn from Teviot Road Bridge to the confluence with the Clutha River: a. The consent holder shall provide environmental flow augmentation to the Tima Burn to maintain either:

	i. A minimum of 21 L/s of stream flow throughout the reach from Teviot Road Bridge to the confluence with the Clutha River, or ii. The assessed natural flow in the Tima Burn at/downstream of Teviot Road Bridge to the confluence with the Clutha River corresponding to an upstream catchment natural 7 day Mean Annual Low Flow ("MALF") of 21 L/s, inclusive of any natural stream leakage. Any assessed natural flow shall be supported by at least 3 months of flow monitoring required by condition 10a and supported by an analysis and report undertaken by a suitably qualified hydrologist. b. The non-consumptive flow augmentation to the Tima Burn shall be abstracted from groundwater sources and form part of the dewatering allocation to this resource consent. c. Any flow augmentation from groundwater sources to the Tima Burn shall be fresh (clean) water to fresh water. d. The Consent Holder shall monitor Dissolved Oxygen of any flow augmentation water discharged to the Tima Burn. The 7-day mean minimum Dissolved Oxygen level of the augmentation water shall be ≥8 mg/L, as measured prior to discharge into the Tima Burn.
9.	Within three months of the commencement of this consent, the Consent Holder shall provide to the Consent Authority a measurement of the flow in the Tima Burn at the bridge over Teviot Road and near to the confluence with the Clutha / Mata-au. A report containing the flow measurements and an analysis of any natural stream leakage will be provided to the consent authority in a report. The report and analysis shall be undertaken by a suitably qualified hydrologist.
Performance Monitoring	
10.	During the exercise of this consent, the Consent Holder shall: a. Assess the flow in the Tima Burn at or above the Teviot Road Bridge on a weekly basis, except, b. When flow augmentation is required in accordance with condition 8, the flow in the Tima Burn shall be measured on a daily basis. c. All Tima Burn flow records shall be recorded and kept in an electronic logbook and shall be made available to the Consent Authority upon request.
11.	a. The Consent Holder shall monitor groundwater levels within the lateral boundaries of the advancing mine pit pond. The Consent Holder shall monitor groundwater levels (at least) on a weekly basis, commencing one month prior to the commencement of any site dewatering. Once initial site dewatering is complete, monitoring of groundwater levels shall be undertaken until such time that steady state conditions are confirmed to be reached by a suitably qualified hydrologist. b. Piezometric water level records as required by this monitoring condition, shall be provided to the Consent Authority on an annual basis by 31 July each year, and as requested in writing.
12.	a. Prior to the first exercise of this consent, the Consent Holder shall install a:

	i. Water meter(s) that will measure the rate and the volume of groundwater taken from the mine pit to within an accuracy of +/- 10% over the meter's nominal flow range at the point of take. The water meter shall be capable of output to a datalogger. ii. Water meter that will measure the rate and the volume of water taken to augment the Tima Burn flows within an accuracy of +/- 10% over the meter's nominal flow range. The water meter shall be capable of output to a datalogger. iii. A datalogger(s) that time stamps a pulse from the flow meters at least once every 15 minutes and have the capacity to hold at least twelve months data of water taken. b. Provide records from the datalogger electronically to the Consent Authority at annual intervals by 31 July each year and at any time upon request. Data shall be provided electronically giving the date, time and flow rates in no more than 15-minute increments of water. c. Within 20 working days of the installation of the water meter(s) and datalogger(s), any subsequent replacement of the water meter(s) and datalogger(s), and at five yearly intervals (for any electromagnetic or built in ultrasonic meter) or annual (for any mechanical or clamp on ultrasonic meter) intervals thereafter, and at any time when requested by the Council, the Consent Holder shall provide written certification to the Consent Authority signed by a suitably qualified person certifying, and demonstrating by means of a clear diagram, that: i. Each device is installed in accordance with the manufacturer's specifications; ii. Data from the recording device can be readily accessed and/or retrieved in accordance with the conditions above; and iii. that the water meter has been verified as accurate. d. The water meter(s) and datalogger(s) shall be installed and maintained throughout the duration of the consent in accordance with the manufacturer's specifications. e. All practicable measures shall be taken to ensure that the water meter(s) and recording device(s) are fully functional at all times. f. The Consent Holder shall report any malfunction of the water meter(s) and datalogger(s) to the Consent Authority within 5 working days of observation of the malfunction. The malfunction shall be repaired within 10 working days of observation of the malfunction and the Consent Holder shall provide proof of the repair, including photographic evidence, to the Consent Authority within 5 working days of the completion of repairs. Photographs shall be in colour and be no smaller than 200 x 150 millimetres in size and be in JPEG form. *Note: the water meter and data logger should be safely accessible by the Consent Authority and its contractors at all times. The Water Measuring Device Verification Form and Calibration Form are available on the Consent Authority's website.*

13.	Prior to the first exercise of this consent, the Consent Holder shall take representative water samples from the targeted monitoring bores in accordance with Condition 12 of Discharge Permit RM23.819.03.
General	
14.	The Consent Holder shall take all practicable steps to ensure that as a result of the groundwater take: a. There is no unintended leakage from pipes and structures; b. There is no unintended run-off of abstracted groundwater either on site or off site; and c. There is no flooding of other person's property, including erosion, land instability, sedimentation or property damage.
15.	The Consent Holder shall maintain a record of any complaints alleging adverse effects arising from, or related to, the works activities authorised by this consent; the "Complaints Register". a. The Complaints Register shall include: i. The date, time, location, and nature of the complaint; ii. The date, time, location and nature of any incident related to the complaint; iii. The name, phone number, email and address of the complainant, unless the complainant elects not to supply this information; iv. Details of actions taken by Consent Holder to remedy the situation, including actions taken on site to remedy the issue, correspondence with the complainant and any policies or methods put in place to avoid or mitigate the problem occurring again. b. The Complaints Register shall be provided to Council on request and annually as required in condition 16. c. Upon receipt of any complaint that alleges non-compliance with the conditions of this consent, the Consent Holder shall promptly investigate the complaint, and take necessary action to ensure the activity is compliant with the conditions of this consent.
16.	The Consent Holder shall submit an **Annual Groundwater Report** by the 31st of July each year which includes the following: a. Details of any affected bores and alternative water supply provided in accordance with condition 7 of RM23.819.02; b. Details of any augmentation of the Tima Burn undertaken in accordance with condition 8 of RM23.819.02; c. Results of Tima Burn flow monitoring required by condition 10; d. Results of groundwater level monitoring required by condition 11 of RM23.819.02; e. Results of the water quality monitoring carried out in accordance with Conditions 12 and 13 of RM23.819.03; f. An analysis of the water quality data collected in accordance with Conditions 12 and 13 of RM23.819.03, prepared by a suitably qualified and experienced person, assessing whether the data shows that the Consent Holder's activities are adversely impacting groundwater quality or any drinking water supply.

	g. A record of any complaints received in relation to the compliance with the conditions of this consent, including the information listed in condition 15.
Review Condition	
17.	The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions of this consent during the period of three months either side of the date of granting of this consent each year, or within two months of any enforcement action taken by the Consent Authority in relation to the exercise of this consent, or on receiving monitoring results, for the purpose of: a. Determining whether the conditions of this consent are adequate to deal with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage, or which becomes evident after the date of commencement of the consent; b. Ensuring the conditions of this consent are consistent with any National Environmental Standards, relevant regional plans, and/or the Otago Regional Policy Statement; c. Reviewing the frequency of monitoring or reporting required under this consent; d. Amending the monitoring programme set out in accordance with Conditions 7, 10 to 13; or e. Varying the consented quantities and rates of take and monitoring, operating and reporting requirements, and performance requirements to respond to: i. the results of previous monitoring carried out under this consent and/or: ii. water availability, including alternative water sources; iii. actual and potential water use; iv. groundwater levels and/or the setting of aquifer restriction levels; v. surface water flow and level regimes; vi. groundwater or surface water quality; vii. efficiency of water use; viii. Instream biota, including fish passage and the functioning of aquatic ecosystems; or ix. new requirements for measuring, recording and transmission.
Notes to Consent Holder	
1.	*If you require a replacement consent upon the expiry date of this consent, any new application should be lodged at least 6 months prior to the expiry date of this consent. Applying at least 6 months before the expiry date may enable you to continue to exercise this consent under section 124 of the Resource Management Act 1991 until a decision is made on the replacement application (and any appeals are determined).*
2.	*The Consent Holder is responsible for obtaining all other necessary consents, permits, and licences, including those under the Building Act 2004, the Biosecurity Act 1993, the Conservation Act 1987, and the Heritage New Zealand Pouhere Taonga Act 2014. This consent does not remove the need to comply with all other applicable Acts (including the Property Law Act 2007 and the Health and Safety at Work Act 2015), regulations, relevant*

	Bylaws, and rules of law. This consent does not constitute building consent approval. Please check whether a building consent is required under the Building Act 2004.
3.	*Where information is required to be provided to the Consent Authority this is provided in writing to compliance@orc.govt.nz, and the email heading is to reference RM23.819.02 and the condition/s the information relates to.*
4.	*The Consent Holder will be required to pay the Consent Authority an administration and monitoring charge to recover the actual and reasonable costs incurred to ensure ongoing compliance with the conditions attached to this consent, collected in accordance with Section 36 of the Resource Management Act 1991.*
5.	*It is the responsibility of the Consent Holder to ensure that the water abstracted under this resource consent is of suitable quality for its intended use. Where water is to be used for human consumption, the consent holder should have the water tested prior to use and should discuss the water testing and treatment requirements with a representative of the Ministry of Health and should consider the New Zealand Drinking Water Standards.*
6.	*The Consent Holder is advised that water supplied for human consumption may also need to meet the requirements of the Health Act 1956, the Drinking Water Standards for New Zealand 2005 (Revised 2018), and any other Ministry of Health requirements.*

RM23.819.03 – Discharge Permit to discharge sediment-laden water to water in a bore, and to land in a manner that may enter water.

Specific	
1.	The discharge of sediment-laden water to land and to water in a shall be carried out in accordance with the plans and all information and all information submitted with the application, further information, additional information provided at the hearing and the Master Plan Set dated 24/6/2024. If there are any inconsistencies between the above information and the conditions of this consent, the conditions of this consent will prevail.
2.	This consent shall be exercised in conjunction with Land Use Consent RM23.819.01, Water Permit RM23.819.02, Discharge Permit RM23.819.04.
3.	All personnel working on the site shall be briefed on the contents of this consent document and any documents referred to in the conditions of this consent. A copy of this consent and any documents referred to in the conditions of this consent shall be immediately accessible on site.
4.	The duration of consent shall be 10 years from the commencement of the consent.
5.	The Consent Holder shall appoint a member of staff to be responsible for ensuring that the conditions of this consent are complied with; the "Compliance Officer". a. The Compliance Officer shall be based on site a minimum of three days per week; b. The Consent Holder shall ensure that there is a nominated cover person for the Compliance Officer if the Compliance Officer is unavailable; the "Nominated Cover Person";

<table>
<tr><td></td><td>c. The Consent Holder shall provide the Compliance Officer's and the Nominated Cover Person's name and contact details to the Consent Authority and Aukaha (consents@aukaha.co.nz) prior to commencing mining on the site.</td></tr>
<tr><td>6.</td><td>This consent authorises the discharge of groundwater containing sediment to land, whereby it may enter water at locations adjacent to the transient mine pit pond between NZTM 2000 grid coordinates E 1318240 N 4939570 and NZTM E 1319440 N 4938130 shown as "discharge to land envelope" on Sheet 11 of the Master Plan set dated 24/06/24. Sediment retention ponds are to be sized appropriately to allow a minimum of 300mm freeboard, and to ensure they do not overflow.</td></tr>
<tr><td>7.</td><td>The volume of water discharged shall not exceed:
a. 124.8 litres per second; and
b. 10,783 cubic metres per day.</td></tr>
<tr><td>8.</td><td>The Consent Holder shall maintain a discharge buffer zone of at least 50 metres between the discharge to land, and the Clutha River/Mata-Au at all times and shall ensure that there is no direct discharge from the sediment retention ponds to any surface watercourse.</td></tr>
<tr><td>9.</td><td>No contaminants other than silt, sediment and biodegradable flocculants shall be discharged.</td></tr>
<tr><td colspan="2">Performance Monitoring</td></tr>
<tr><td>10.</td><td>Following the commencement of this consent and prior to undertaking any discharge authorised by this consent, a water quality monitoring network shall be established for the mine which shall include:
a. Four new groundwater quality monitoring locations on the site boundaries at the following locations (NZTM 2000 co-ordinates), and as illustrated in the following table (on Sheet 11 of the Master Plan set dated 24/06/24):
<table>
<tr><td>X</td><td>Y</td></tr>
<tr><td>1318342</td><td>4939666</td></tr>
<tr><td>1319425</td><td>4938275</td></tr>
<tr><td>1319434</td><td>4938518</td></tr>
<tr><td>1318799</td><td>4939004</td></tr>
</table>
b. The settling pond and the exposed area of groundwater (mine pit pond), to assess discharge water quality.
c. A bore adjacent to the Millers Flat Landfill (shown as shown on Sheet 11 of the Master Plan set dated 24/06/24).

If the above monitoring bores are relocated due to access being unavailable, the updated co-ordinates shall be submitted to the Consent Authority before drilling commences.</td></tr>
<tr><td>11.</td><td>The bore drilling and installation of the piezometers required by Condition 10 shall be overseen by a suitably qualified person. A report that demonstrates compliance with the requirements of Condition 10 shall be submitted to the Consent Authority within one month of the installation of the bore(s) or one month of the commencement of the consent.</td></tr>
<tr><td>12.</td><td>The Consent Holder shall take representative water samples from the water quality monitoring network established in Condition 10, commencing after the commencement</td></tr>
</table>

	of this consent and prior to undertaking any discharge authorised by this consent. Quarterly monitoring shall continue for the duration of this consent unless the mine pit is completely rehabilitated, and the activity has permanently ceased. During each monitoring event: a. Water levels shall be measured and recorded at the time of sampling. b. Field parameters (colour, odour, temperature, pH, Dissolved Oxygen (mg/L and % sat), Electrical Conductivity and Oxidation Reduction Potential) shall be measured and recorded at the time of sampling using a calibrated water quality meter in a flow cell. Samples shall be collected after field parameters have stabilised to within 5% of the previous three measurements. Field filtering of samples shall be completed for dissolved metals analysis. c. Samples shall be analysed by a laboratory with IANZ accreditation or equivalent for total petroleum hydrocarbons, total suspended solids, turbidity, major ions (sodium, potassium, calcium, magnesium, alkalinity, chloride, sulphate, nitrate), copper, chromium, zinc, Arsenic and E-coli, iron and manganese. Samples shall be analysed for both total and dissolved metals. d. The sampling shall be undertaken by a suitably trained person in general accordance with the National Environmental Monitoring Standards Water Quality Part 1 of 4: Discrete Sampling, Measuring, Processing and Archiving of Discrete Groundwater Quality Data. e. The monitoring data shall be provided to the Consent Authority, Aukaha and the Millers Flat Water Company within 10 days of receipt of results.
13.	Quarterly (four times per year) water monitoring shall be undertaken for total suspended solids and turbidity at the following sites: • Final discharge infiltration area; • True left bank of the Clutha River/Mata-Au within 100 m upstream of the site; and • True left bank of the Clutha River/Mata-Au within 500 m downstream of final infiltration pond/area discharge. This monitoring shall be undertaken for the duration of this consent, until the mine pit is completely rehabilitated, and the activity has permanently ceased. The monitoring data shall be provided to the Consent Authority, Aukaha and the Millers Flat Water Company within 10 days of receipt of results.
14.	The measured value of the determinants in samples from monitoring bores measured in accordance with Conditions 12 shall be compared to the NZ Drinking Water Standard Maximum Acceptable Value or Guideline (Aesthetic) Value, as specified in the relevant New Zealand Drinking Water Standards ("NZDWS") at the time of sampling. If, either: a. The measured value of any determinant exceeds the relevant NZDWS value, or b. The measured value of any determinant shows an increase from the previous value, where any determinant exceeded the relevant NZDWS value prior to the commencement of this consent, then the Consent Holder shall: c. Advise the Consent Authority and any potentially affected water well owners within 48 hours of receipt of the results. Identification of potentially affected water wells shall be undertaken by a suitably qualified water quality expert.

	d. If the potentially affected water well is used for potable supply and the owner requests, the Consent Holder shall provide the potentially affected well owner with an alternative water supply of at least 2,000 litres per day for each household. The alternative water supply shall be provided until such time as water quality testing and an assessment from the suitably qualified water quality expert demonstrates that any contamination of the potable supply well is either not likely to be caused by the Consent Holder, or the potentially affected water well returns three tests that show that the contamination has been remedied. All costs shall be borne by the Consent Holder. e. Increase the sampling frequency at the monitoring bore which returned elevated results to once per week, until the affected bore returns at least three tests which show the contamination has been remedied. f. Within one week from the receipt of results, the Consent Holder shall begin an investigation into the cause of the elevated sample results. The investigation is to be carried out by a suitably qualified water quality expert and is to include, but is not limited to; i. results of water quality sampling; ii. activities at the mine site; iii. activities at the neighbouring property(s); iv. rainfall prior to, and during, the investigation period; and v. any additional water quality monitoring that may be required to assess the potential cause of contamination. g. Within one month of receipt of the elevated sample results, submit a report signed by a suitably qualified water quality expert to the Consent Authority and the potentially affected water well owners on the investigation undertaken, any potential sources of contamination identified, the likely cause(s) of the contamination and recommend any remedial measures to prevent or mitigate the contamination.
15.	If a report required under Condition 14 concludes that the discharge is causing a significant adverse water quality effect at a target monitoring bore, the Consent Holder shall, within one month of receiving that report, implement additional or alternative sediment treatment/management measures to reduce the concentration of suspended solids entering the infiltration area and: a. The Consent Holder shall report to the Consent Authority, Aukaha and Millers Flat Water Company as soon as practicable on the completion of any such works; and b. Within 12 months of completion of any additional sediment treatment/management measures, the Consent Holder shall provide a report to the Consent Authority, Aukaha and Millers Flat Water Company written by a suitably qualified person on the effectiveness of those measures.
General	
16.	There shall be no direct discharge of any sediment-laden groundwater from the site to a surface water body.
17.	The Consent Holder shall ensure that the discharge authorised by this consent does not cause any flooding, erosion, scouring, land instability or damage to any adjacent property.

18.	The Consent Holder shall maintain a record of any complaints alleging adverse effects arising from, or related to, the works activities authorised by this consent; the "Complaints Register". a. The Complaints Register shall include: i. The date, time, location, and nature of the complaint. ii. The date, time, location and nature of any incident related to the complaint. iii. The name, phone number, email and address of the complainant, unless the complainant elects not to supply this information. iv. Details of actions taken by Consent Holder to remedy the situation, including actions taken on site to remedy the issue, correspondence with the complainant and any policies or methods put in place to avoid or mitigate the problem occurring again. b. The Complaints Register shall be provided to Council on request and annually as required in condition 19. c. Upon receipt of any complaint that alleges non-compliance with the conditions of this consent, the Consent Holder shall promptly investigate the complaint, and take necessary action to ensure the activity is compliant with the conditions of this consent.
19.	The Consent Holder shall submit an **Annual Groundwater Report** by the 31st of July each year which includes the following: a. Details of any affected bores and alternative water supply provided in accordance with condition 7 of RM23.819.02. b. Details of any augmentation of the Tima Burn undertaken in accordance with condition 8 of RM23.819.02. c. Results of groundwater level monitoring required by condition 11 of RM23.819.02. d. Results of the water quality monitoring carried out in accordance with Conditions 12 and 13 of RM23.819.03; e. The identity and expertise of the person(s) who collected water samples in accordance with Conditions 12 and 13 of RM23.819.03; f. An analysis of the water quality data collected in accordance with Conditions 12 and 13 of RM23.819.03, prepared by a suitably qualified and experienced person, assessing whether the data shows that the Consent Holder's activities are adversely impacting groundwater quality or any drinking water supply. g. A record of any complaints received in relation to the compliance with the conditions of this consent, including the information listed in condition 18.
Review	
20.	The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions of this consent during the period of three months either side of the date of granting of this consent each year, or within two months of any enforcement action taken by the Consent Authority in relation to the exercise of this consent, or on receiving monitoring results, for the purpose of:

	a. Determining whether the conditions of this consent are adequate to deal with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage, or which becomes evident after the date of commencement of the consent; b. Ensuring the conditions of this consent are consistent with any National Environmental Standards, relevant regional plans, and/or the Otago Regional Policy Statement; c. Reviewing the frequency of monitoring or reporting required under this consent; d. Amending the monitoring programme set out in accordance with Conditions 10 to 15; or e. Varying the consented quantities and rates of take and monitoring, operating and reporting requirements, and performance requirements to respond to: i. the results of previous monitoring carried out under this consent and/or: ii. water availability, including alternative water sources; iii. actual and potential water use; iv. groundwater levels and/or the setting of aquifer restriction levels; v. surface water flow and level regimes; vi. groundwater or surface water quality; vii. efficiency of water use; viii. Instream biota, including fish passage and the functioning of aquatic ecosystems; or ix. new requirements for measuring, recording and transmission.
Notes to Consent Holder	
1.	*If you require a replacement consent upon the expiry date of this consent, any new application should be lodged at least 6 months prior to the expiry date of this consent. Applying at least 6 months before the expiry date may enable you to continue to exercise this consent under section 124 of the Resource Management Act 1991 until a decision is made on the replacement application (and any appeals are determined).*
2.	*The Consent Holder is responsible for obtaining all other necessary consents, permits, and licences, including those under the Building Act 2004, the Biosecurity Act 1993, the Conservation Act 1987, and the Heritage New Zealand Pouhere Taonga Act 2014. This consent does not remove the need to comply with all other applicable Acts (including the Property Law Act 2007 and the Health and Safety at Work Act 2015), regulations, relevant Bylaws, and rules of law. This consent does not constitute building consent approval. Please check whether a building consent is required under the Building Act 2004.*
3.	*Where information is required to be provided to the Consent Authority in condition/s 10 to 15, this is provided in writing to compliance@orc.govt.nz, and the email heading is to reference RM23.819.03 and the condition/s the information relates to.*
4.	*The Consent Holder will be required to pay the Consent Authority an administration and monitoring charge to recover the actual and reasonable costs incurred to ensure ongoing compliance with the conditions attached to this consent, collected in accordance with Section 36 of the Resource Management Act 1991*

RM23.819.04 – Discharge Permit to discharge contaminants to air for the purpose of operating an alluvial gold mine.

Conditions	
1.	The discharge to air associated with the operation of the alluvial gold mine shall be carried out in accordance with the plans and all information submitted with the application, further information, additional information provided at the hearing and the Master Plan Set dated 24/6/2024. If there are any inconsistencies between the above information and the conditions of this consent, the conditions of this consent will prevail.
2.	This consent shall be exercised in conjunction with Land Use Consent RM23.819.01, Water Permit RM23.819.02, and Discharge Permit RM23.819.03.
3.	All personnel working on the site shall be briefed on the contents of this consent document and any documents referred to in the conditions of this consent. A copy of this consent and any documents referred to in the conditions of this consent shall be immediately accessible on site.
4.	The duration of consent shall be 10 years from the commencement of the consent.
5.	The Consent Holder shall appoint a member of staff to be responsible for ensuring that the conditions of this consent are complied with; the "Compliance Officer". a. The Compliance Officer shall be based on site a minimum of three days per week; b. The Consent Holder shall ensure that there is a nominated cover person for the Compliance Officer if the Compliance Officer is unavailable; the "Nominated Cover Person"; c. The Consent Holder shall provide the Compliance Officer's and the Nominated Cover Person's name and contact details to the Consent Authority) and Aukaha (consents@aukaha.co.nz) prior to commencing mining on the site.
6.	There shall be no discharge of dust or the deposition of particulate matter beyond the boundary of the site that is noxious, dangerous, offensive or objectionable.
7.	Extracted material from the Site shall not be crushed on the Site.
8.	The Site Manager or another nominated person shall be available at all times (including outside mine operation hours) to respond to dust emission complaints and trigger level alerts in accordance with measures described in the Dust Management and Monitoring Plan (DMMP), as required by Condition 10.
9.	The maximum area of unconsolidated land comprising the excavation area, backfilling areas and unvegetated rehabilitation area shall not exceed 12 hectares. *Advice Note: The maximum area of unconsolidated land does not include the haul roads, processing area, stockpiles, areas which are covered with 50mm (or more) of washed gravels or stabilised with a dust suppressant (excluding water), portacoms or workshops, and the associated service area.*
Dust Management and Monitoring Plan	

10.	The Consent Holder shall submit a Dust Management and Monitoring Plan (DMMP) to the Consent Authority at least 15 working days prior to the exercise of this consent for certification that it documents, as a minimum: a. The objective of DMMP is to implement the conditions of this consent; b. The conditions of consent that the DMMP implements and how each condition is given effect to; c. A description of the dust sources on site; d. A description of the receiving environment, and identification of the Sensitive Receptor Management Zone (SRMZ), i.e. the dwelling and land within 20 m of the façade, located at: i. 67 Clutha Road, Ettrick; ii. 5280 Ettrick-Raes Junction Road; iii. 5330 Ettrick-Raes Junction Road; iv. 1535a Teviot Road, Millers Flat. e. The dust mitigation methods (including dust reduction through design methodologies) which will be employed to ensure compliance with the conditions of this consent including, but not limited to: i. Water suppression; ii. Limiting height of stockpiles to 7m; iii. Limiting topsoil stripping to 1ha in advance, except where necessary to provide for archaeological or cultural discovery; iv. A speed limit for vehicles of 15km/h on unpaved surfaces; v. Vegetating or otherwise stabilising rehabilitation areas and stockpiles. f. Additional dust suppression measures to be implemented within the SRMZ, including; i. Undertaking earthworks in winter where practicable; ii. Additional dust suppression activities; iii. Limiting height of stockpiles to 4m. g. A description of particulate matter and wind monitoring requirements including: i. Monitoring instrumentation methodology, installation and commissioning requirements including compliance with the relevant Stannard(s) and maintenance and calibration procedures and frequency. ii. The methods used to select the location and height of the wind monitoring equipment; iii. The methods used to select the location of particulate matter monitors between active work areas and sensitive off-site receptors, with consideration of predominant wind direction; iv. Details of wind speed trigger levels and the associated alarm system, including wind direction; v. Details of the particulate matter trigger levels as set out in Conditions 20 and 21 and the associated alarm system; and h. A description of procedures for responding to dust and wind condition-based trigger levels and associated follow up investigations, actions and recording of findings;

	i. A system for training employees and contractors to make them aware of the requirements of the DMMP; j. Names and contact details of staff responsible for implementing and reviewing the DMMP in order to achieve the requirements of this consent, and procedures, processes and methods for managing dust outside of standard operating hours; k. A method for recording and responding to complaints from the public in accordance with Condition 23; l. Contingency measures for responding to dust suppression equipment malfunction or failures, including wind and particular matter monitoring instruments; m. A procedure for completing a start-of-day dust control checklist; n. Environmental information management for recording, quality assurance, archiving and reporting all data required to be collected and reported on under this consent; o. The process of reviewing and revising particulate trigger concentration levels set in Conditions 20 and 21; and p. The process of reviewing and updating the DMMP annually, and/or following a validated dust complaint.
11.	a. Activities authorised by this consent shall not commence until the Consent Holder has received written certification that the DMMP is consistent with the conditions of this consent. Notwithstanding this, the DMMP is deemed certified, and works may proceed if the Consent Holder has not received a response from the Consent Authority within 15 working days of the date of the submission of the DMMP. b. If the response from the Council is that they are not able to certify the management plans, such a response shall include detailed reasons with reference to the conditions of consent that the Council consider the Management Plan does not meet. The Consent Holder shall consider any reasons and recommendations provided by the Council, amend the management plan accordingly, and resubmit the management plan for certification to the Council. If the Consent Holder has not received a response from the Council within 5 working days of the date of resubmission for certification to Council of a management plan listed under this condition, the management plan shall be deemed certified.
12.	The DMMP shall be reviewed at least annually. The purpose of the review is to ensure that the DMMP remains fit for purpose and to address any changes required to respond to any non-compliance, public complaints or review of monitoring results in the previous year.
13.	The Consent Holder may amend the DMMP at any time, in a way that is consistent with the conditions of this resource consent, to take into account: a. Any positive measure/s to ensure the stated objectives of the management plan are achieved. b. Any changes required to further reduce the potential for adverse effects; c. Any required actions identified as a result of monitoring.
14.	Any DMMP amended in accordance with condition 13 or reviewed in accordance with condition 12 shall be provided to the Consent Authority within 15 working days of its review/amendment, for re-certification in accordance with Conditions 10 and 11. Where the DMMP is amended or reviewed, the activity may continue in accordance with the

	previously certified version of the DMMP, until the revised version is certified by the Council.
15.	A copy of the latest version of the certified DMMP shall be kept on site at all times. Subject to any other conditions of this consent and associated consents RM23.819.01, RM23.819.02 and RM23.819.03, all activities shall be undertaken in accordance with the latest version of the certified DMMP.
Meteorological Monitoring	
16.	Prior to any discharge of contaminants occurring under this consent, the Consent Holder shall install, or use an existing, meteorological monitoring station onsite that is, as far as practical, consistent with the requirements of AS/NZS 3580.1.1:2016 Methods for sampling and analysis of ambient air, Part 14: Meteorological monitoring for ambient air quality monitoring applications. The meteorological monitoring station shall be capable of continuously monitoring and recording: a. Wind speed and direction at a minimum height of 5m above the natural ground level; b. Rainfall; c. Relative humidity; and d. Temperature.
17.	All meteorological monitoring data shall be made available to the Consent Authority on request.
Particulate Matter Monitoring	
18.	a. Prior to exercising this consent, the Consent Holder shall commission, operate and maintain at least two real-time dust monitors (the "dust monitors") for continuous monitoring of ambient particulate matter 10 micrometres or less in diameter (PM_{10}) concentrations. b. At all times the dust monitors should be located on, or near, the site boundary between the active work area and sensitive receptor(s) in the predominate downwind locations. c. The detailed process for locating the dust monitors shall be outlined in the DMMP required by Condition 10.
19.	All dust monitors shall: a. Be sited in general accordance with AS/NZS 3580.1.1:2016 Methods for sampling and analysis of air – Guide to siting air monitoring equipment; b. Have a GPS locator (or similar technology) which enables their locations to be remotely monitored and recorded; c. Provide and record the results continuously using an electronic data logging system with an averaging time for each parameter of not more than one minute; d. Record monitoring results in real-time as rolling 10-minute and 1-hour averages in an appropriate electronic format; e. Be fitted with an alarm system that is able to send warnings and alerts to the Site Manager or other nominated persons; and f. Be installed, operated, maintained and calibrated in accordance with the AS/NZS 3580.12.1:2015 Methods for sampling and analysis of ambient air –

	Determination of light scattering – Integrating nephelometer method, or else an equivalent or superior standard which is approved by the Consent Authority.
Trigger Levels	
20.	The trigger concentration which indicates the potential for excessive mine-derived dust at or beyond the site boundary is a maximum real time PM_{10} concentration of 150 micrograms per cubic metre, as a rolling 1-hour average, which shall be updated every ten minutes.
21.	A pre-trigger concentration alert level shall be specified in the DMMP, the purpose of which is to provide an early warning that the trigger concentration in Condition 20 may be reached. This shall be a maximum PM_{10} concentration value of 150 micrograms per cubic metre, as a rolling 10-minute average, which shall be updated every 1 minute.
22.	If at any time, including outside normal operating hours, visible dust is blowing beyond the site boundary or if the particulate matter monitoring trigger in Condition 20 is breached, the Consent Holder shall: a. Cease all mining activities, except dust suppression measures and processing of wet material in the dredge; b. Continue all dust suppression activities including but not limited to the immediate watering of both active and inactive exposed surfaces; c. Investigate possible sources of the dust; d. Only resume mining activities (other than dust suppression) once there is no longer visible dust blowing beyond the site boundaries and when the monitoring trigger in Condition 20 is no longer being breached; and e. Notify the Consent Authority within 24 hours, detailing its cause and the dust suppression actions undertaken.
Complaints	
23.	The Consent Holder shall maintain a record of any complaints alleging adverse effects arising from, or related to, the works activities authorised by this consent; the "Complaints Register". a. The Complaints Register shall include: i. The date, time, location, and nature of the complaint. ii. The date, time, location and nature of any incident related to the complaint. iii. The name, phone number, email and address of the complainant, unless the complainant elects not to supply this information. iv. Details of actions taken by Consent Holder to remedy the situation, including actions taken on site to remedy the issue, correspondence with the complainant and any policies or methods put in place to avoid or mitigate the problem occurring again. b. The Complaints Register shall be provided to Council on request and annually as required in condition 24. c. Upon receipt of any complaint that alleges non-compliance with the conditions of this consent, the Consent Holder shall promptly investigate the complaint, and take necessary action to ensure the activity is compliant with the conditions of this consent.

Annual Reporting	
24.	By the 30th of June each year, the Consent Holder shall provide a report to the Consent Authority to include the following: a. The number of occasions that the dust monitors recorded a breach of the trigger level in Conditions 20 and 21; b. Maintenance and calibration records for the dust monitors; c. Details of the work plan for the next 12 months, including indicative locations of the dust monitors during that period so as to comply with the requirements of condition 18 and 19 of this consent. d. A record of any complaints received in relation to the compliance with the conditions of this consent, including the information listed in condition 23.
Review	
25.	The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions of this consent during the period of three months either side of the date of granting of this consent each year, or within two months of any enforcement action taken by the Consent Authority in relation to the exercise of this consent, or on receiving monitoring results, for the purpose of: a. Determining whether the conditions of this consent are adequate to deal with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage, or which becomes evident after the date of commencement of the consent; b. Ensuring the conditions of this consent are consistent with any National Environmental Standards, relevant regional plans, and/or the Otago Regional Policy Statement; c. Reviewing the frequency of monitoring or reporting required under this consent; and d. Amending the monitoring programme.
Notes to Consent Holder	
1.	*If you require a replacement consent upon the expiry date of this consent, any new application should be lodged at least 6 months prior to the expiry date of this consent. Applying at least 6 months before the expiry date may enable you to continue to exercise this consent under section 124 of the Resource Management Act 1991 until a decision is made on the replacement application (and any appeals are determined).*
2.	*Where information is required to be provided to the Consent Authority, this is provided in writing to compliance@orc.govt.nz, and the email heading is to reference RM23.819.04 and the condition/s the information relates to.*
3.	*The Consent Holder will be required to pay the Consent Authority an administration and monitoring charge to recover the actual and reasonable costs incurred to ensure ongoing compliance with the conditions attached to this consent, collected in accordance with Section 36 of the Resource Management Act 1991.*

Retrospective groundwater permit

RM23.819.05 – Retrospective Water Permit to take and use groundwater for the purpose of trial pit dewatering

Specific	
1.	The retrospective water take associated with trial pit dewatering shall be carried out in accordance with the plans and all information submitted with the application, further information, additional information provided at the hearing and the Master Plan Set 24/06/2024. If there are any inconsistencies between the above information and the conditions of this consent, the conditions of this consent will prevail.
2.	This consent must be exercised in conjunction with Land Use Consent RM23.819.01, Water Permit RM23.819.02, Discharge Permit RM23.819.03, Discharge Permit RM23.819.04, and Discharge Permit RM23.819.06.

Retrospective discharge permit

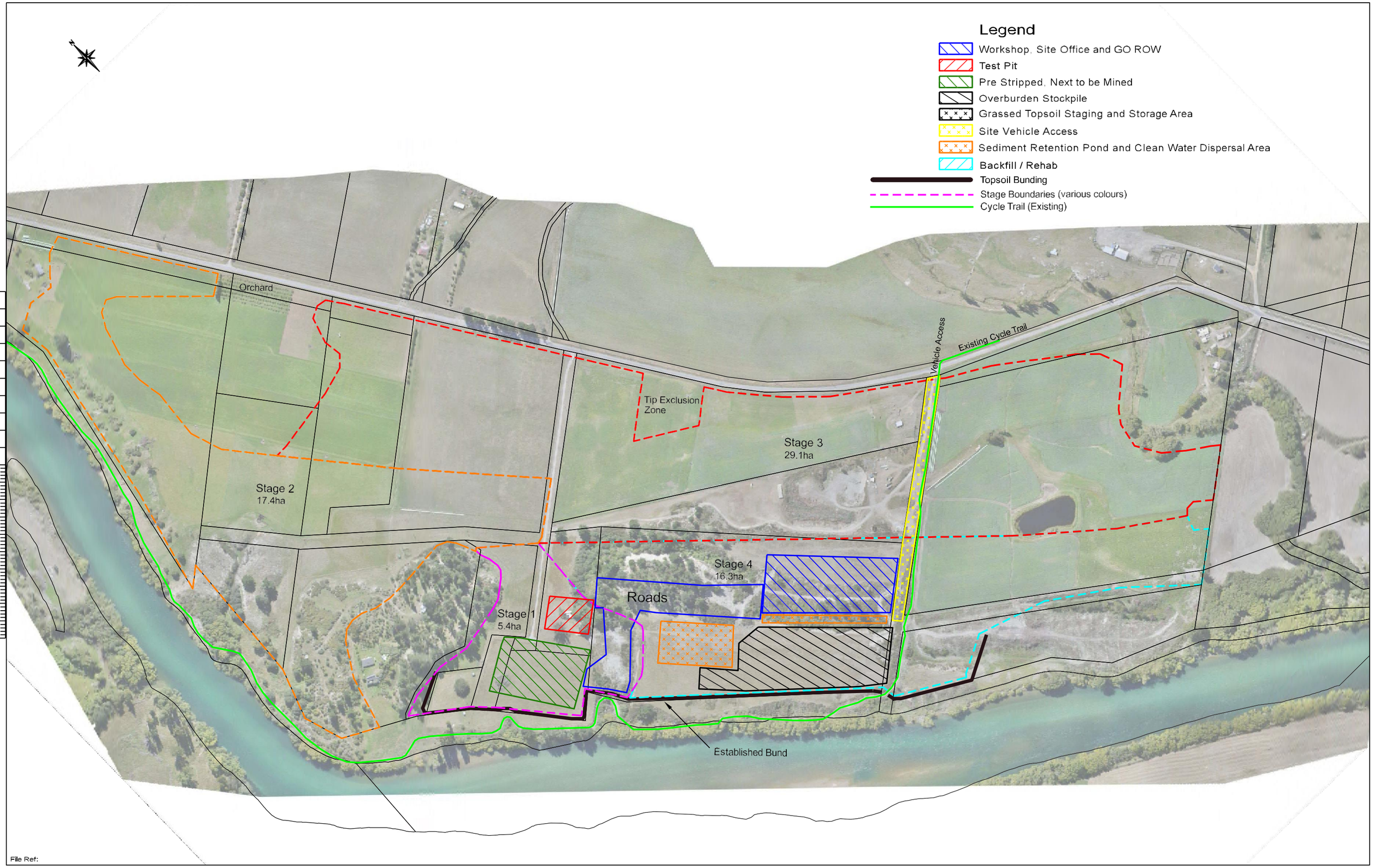
RM23.819.06 – Retrospective Discharge Permit to discharge sediment-laden water to land

Specific	
1.	The retrospective discharge to land associated with trial pit dewatering shall be carried out in accordance with the plans and all information submitted with the application, further information, additional information provided at the hearing and the Master Plan Set 24/06/2024. If there are any inconsistencies between the above information and the conditions of this consent, the conditions of this consent will prevail.
2.	This consent must be exercised in conjunction with Land Use Consent RM23.819.01, Water Permit RM23.819.02, Discharge Permit RM23.819.03, Discharge Permit RM23.819.04, and Water Permit RM23.819.05.

Millers Flat Alluvial Gold Mine

Plan Set Cover Sheet 24/06/2024

Page No.	Plan Ref.	Plan Name	Source	Date
1.	Sheet 1.	Site Plan - Start	Overview Surveying	14/06/24
2.	Sheet 2.	Site Plan - Stage 1	Overview Surveying	14/06/24
3.	Sheet 3.	Site Plan - Stage 2	Overview Surveying	14/06/24
4.	Sheet 3a.	Site Plan - Stage 2a	Overview Surveying	14/06/24
5.	Sheet 4.	Site Plan - Start of Stage 3a	Overview Surveying	14/06/24
6.	Sheet 5.	Site Plan - Stage 3b	Overview Surveying	14/06/24
7.	Sheet 6.	Site Plan - Start of Stage 4	Overview Surveying	14/06/24
8.	Sheet 7.	Site Plan - Stage 4 Mid	Overview Surveying	13/06/24
9.	Sheet 8.	Site Plan - End of Stage 4	Overview Surveying	14/06/24
10.	Sheet 11.	Water Monitoring and Discharge to Land Plan	Overview Surveying	24/06/24
11.	Sheet 1 of 1	Water Infrastructure Within Mine Footprint	Waterforce	12/06/24
12.	Figure 2.	Flood Hazard Assessment Site Plan	GeoSolve	Aug 23
13.	Sheet 1.	Noise Monitoring	Overview Surveying	05/06/24
14.		Dust Management Plan: Sensitive Receptor Management Zones	Town Planning Group	17/06/24
15.		Archaeological Monitoring Plan	Heritage Properties	
16.	Sheet 1.	Bunding Plan	Overview Surveying	18/06/24
17.		Typical Mine Bunding (3m) & Batter Design	Town Planning Group	21/06/24
18.		Typical Mine Bunding (4m) & Batter Design	Town Planning Group	21/06/24
19.		Location of Wells in Condition 7 of RM23.819.02	Town Planning Group	23/08/24
20.		Grid Coordinates referred to in Condition 10 of RM23.819.03	Town Planning Group	23/08/24



File Ref:

Prepared For:

HAWKESWOOD RESOURCES

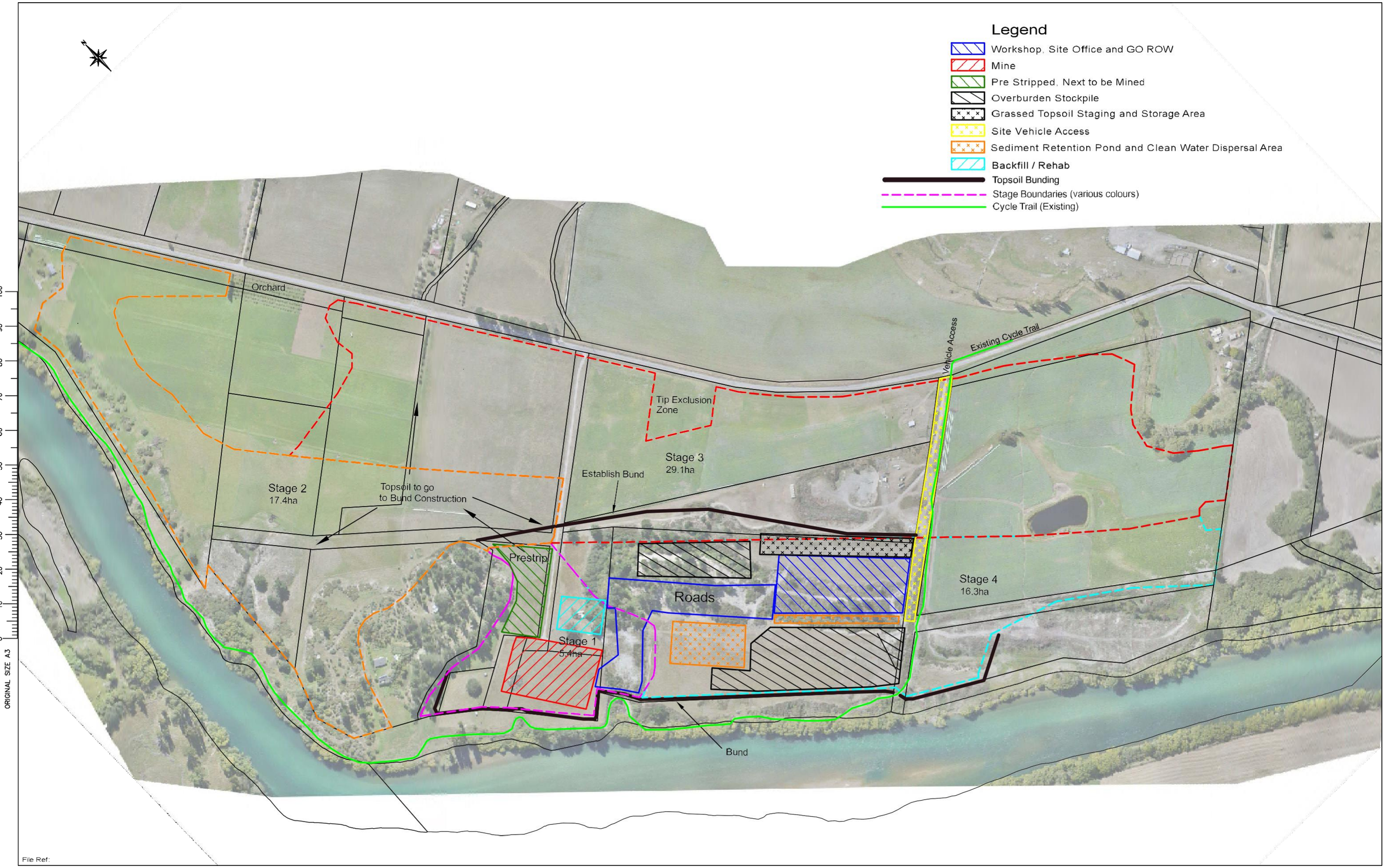
No.	Amendments	Drawn	Date

Site Plan - Start

Millers Flat Alluvial Gold Mine

Project No.: .	Surveyed:
Scale: 1:5000	Designed:
Date: 14/06/2024	Drawn: JR
Sheet: 1	Checked: JR

Overview SURVEYING



File Ref:

Prepared For:

HAWKESWOOD RESOURCES

No.	Amendments	Drawn	Date

Site Plan - Stage 1

Millers Flat Alluvial Gold Mine

Project No.: .	Surveyed:
Scale: 1:5000	Designed:
Date: 14/06/2024	Drawn: JR
Sheet: 2	Checked: JR

Overview SURVEYING

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Legend

- Workshop, Site Office and GO ROW
- I:2Z] Mine
- Pre Stripped, Next to be Mined
- Overburden Stockpile
- Grassed Topsoil Staging and Storage Area
- Site Vehicle Access
- Sediment Retention Pond and Clean Water Dispersal Area
- rzz:I Backfill/ Rehab
- Topsoil Bunding
- Stage Boundaries (various colours)
- Cycle Trail (Existing)

Establish Sund
Establish '''''''
Orchard
Establish B"nd
Establish ''''''
Tip """"sioo
Zone
To- ID
to&mds
Stage 3
29.1ha
Prestrip
Mine
Topsoil to go -
to B,nds
Roads
Stage1
5.4ha
Rehab
Stage 4
6.6ha
Sund

File Ref:

Prepared For:

HAWKESWOOD RESOURCES

No.	Amendments	Drawn	Date

Site Plan - Stage 2

Millers Flat Alluvial Gold Mine

Project No.:	Surveyed:
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Date: 14/06/2024	Drawn: JR
Sheet: 3	Checked: JR

Overview SURVEYING

Legend

- Workshop, Site Office and GO ROW
- Mine
- Pre Stripped, Next to be Mined
- Overburden Stockpile
- Grassed Topsoil Staging and Storage Area
- Site Vehicle Access
- Sediment Retention Pond and Clean Water Dispersal Area
- Backfill / Rehab
- Topsoil Bunding
- Stage Boundaries (various colours)
- Cycle Trail (Existing)

Prestrip
Orchard
Topsoil to go to Rehab
Mine
Backfill
Rehab
Stage 2
17.4ha
Pond
Tip Exclusion Zone
Stage 3
29.1ha
Vehicle Access
Existing Cycle Trail
Stage 4
16.3ha
Roads
Stage 1
5.4ha
Bund

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No.	Amendments	Drawn	Date

Site Plan - Stage 2a

Millers Flat Alluvial Gold Mine

Project No.: .	Surveyed:
Scale: 1:5000	Designed:
Date: 14/06/2024	Drawn: JR
Sheet: 3a	Checked: JR

Legend

- Workshop, Site Office and GO ROW
- Mine
- Pre Stripped, Next to be Mined
- Overburden Stockpile
- Grassed Topsoil Staging and Storage Area
- Site Vehicle Access
- Sediment Retention Pond and Clean Water Dispersal Area
- Backfill / Rehab
- Topsoil Bunding
- Stage Boundaries (various colours)
- Cycle Trail (Existing)

Orchard
Topsoil to go to Rehab
Prestrip
Mine
Rehab
Backfill
Vehicle Access
Existing Cycle Trail
Tip Exclusion Zone
Establish Bund
Bund Cycle Trail
Stage 3
29.1ha
Stockpiled Topsoil to Bund Construction
Stage 2
17.4ha
Pond
Roads
Stage 4
16.3ha
Stage 1
5.4ha

100 90 80 70 60 50 40 30 20 10 0
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File Ref:

Prepared For:

HAWKESWOOD RESOURCES

No.	Amendments	Drawn	Date

Site Plan - Start of Stage 3A

Millers Flat Alluvial Gold Mine

Project No.: .	Surveyed:
Scale: 1:5000	Designed:
Date: 14/06/2024	Drawn: JR
Sheet: 4	Checked: JR

Overview SURVEYING

)(

Legend

- Workshop, Site Office and GO ROW
- I:2Z] Mine
- Pre Stripped, Next to be Mined
- Overburden Stockpile
- Grassed Topsoil Staging and Storage Area
- Site Vehicle Access
- Sediment Retention Pond and Clean Water Dispersal Area
- rzz:l Backfill/ Rehab
- Topsoil Bunding
- Stage Boundaries (various colours)
- Cycle Trail (Existing)

1

Ocobacd

Bood D;s-bl,shmeot
to Rehab aad S' tockpile

Bund Disestablishment
to Rehab and Stockpile

Stage2
17.4ha

Bund Disestablishment
Y"' to Rehab and Stockpil/

Stage 3A

B"ild Cycle Tmil Dl,e,s,oo

Establish Bocd

"1

TipE,ol"s,oc
Zone

Topsoil to go
to Rehab and
to Bund Construction

Establish Bund

Stage 3B

Mine

Backfill

Rehab

Prestrip

d.

Roads

Stage 1
5.4ha

S;a;: 4

16.3 ha

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Prepared For:

HAWKESWOOD RESOURCES

(No.	Amendments	Drawn	Date

Site Plan - Stage 3B

Millers Flat Alluvial Gold Mine

Project No.:	Surveyed:
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Date: 14/06/2024	Drawn: JR
Sheet: 5	Checked: JR

Overview SURVEYING

Legend

IS:S:SI Workshop, Site Office and GO ROW

tzZ) Mine

E:SS] PreStripped, Next to be Mined

cs:sJ Overburden Stockpile

Grassed Topsoil Staging and Storage Area

Site Vehicle Access

Sediment Retention Pond and Clean Water Dispersal Area

Backfill / Rehab

Topsoil Bunding

Stage Boundaries (various colours)

Cycle Trail (Existing)

Ocoha'<f

Cycle D;,e_ra,oo• "' Use

Stage 2
17.4ha

Stage 1
5.4ha

Roads

Stage 4
16.Jha

T;p E>cl,s,oo/
Zooe

Stage 3

Bunding Removed-

Re-b,; Cycle Tran

Rehab

Backfill

Mine

Prestrip

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HAWKESWOOD RESOURCES

No.	Amendments	Drawn	Date

Site Plan - Start of Stage 4

Millers Flat Alluvial Gold Mine

Project No.	
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Date:	14/06/2024
Sheet:	6
Surveyed:	
Designed:	
Drawn:	JR
Checked:	JR

Overview SURVEYING

Legend

- Workshop, Site Office and GO ROW
- Mine
- Pre Stripped, Next to be Mined
- Overburden Stockpile
- Grassed Topsoil Staging and Storage Area
- Site Vehicle Access
- Sediment Retention Pond and Clean Water Dispersal Area
- Backfill/ Rehab
- Topsoil Bunding
- Stage Boundaries (various colours)
- Cycle Trail (Existing)

Occhacd

Cycle Di,ecsioo ''' Use

Tip Zone

Stage 3
29.1ha

Stage 2
17.4ha

Stage

Progressive lage1 Area

Stockpile

Internal Roading to be Provided Between Vehicle Access and Site Office Area

Topsoil to go to Rehab

Rehab

Backfill

Prestrip

Mine

MoveAncillary

Activities to

File Ref:

Prepared For:

HAWKESWOOD RESOURCES

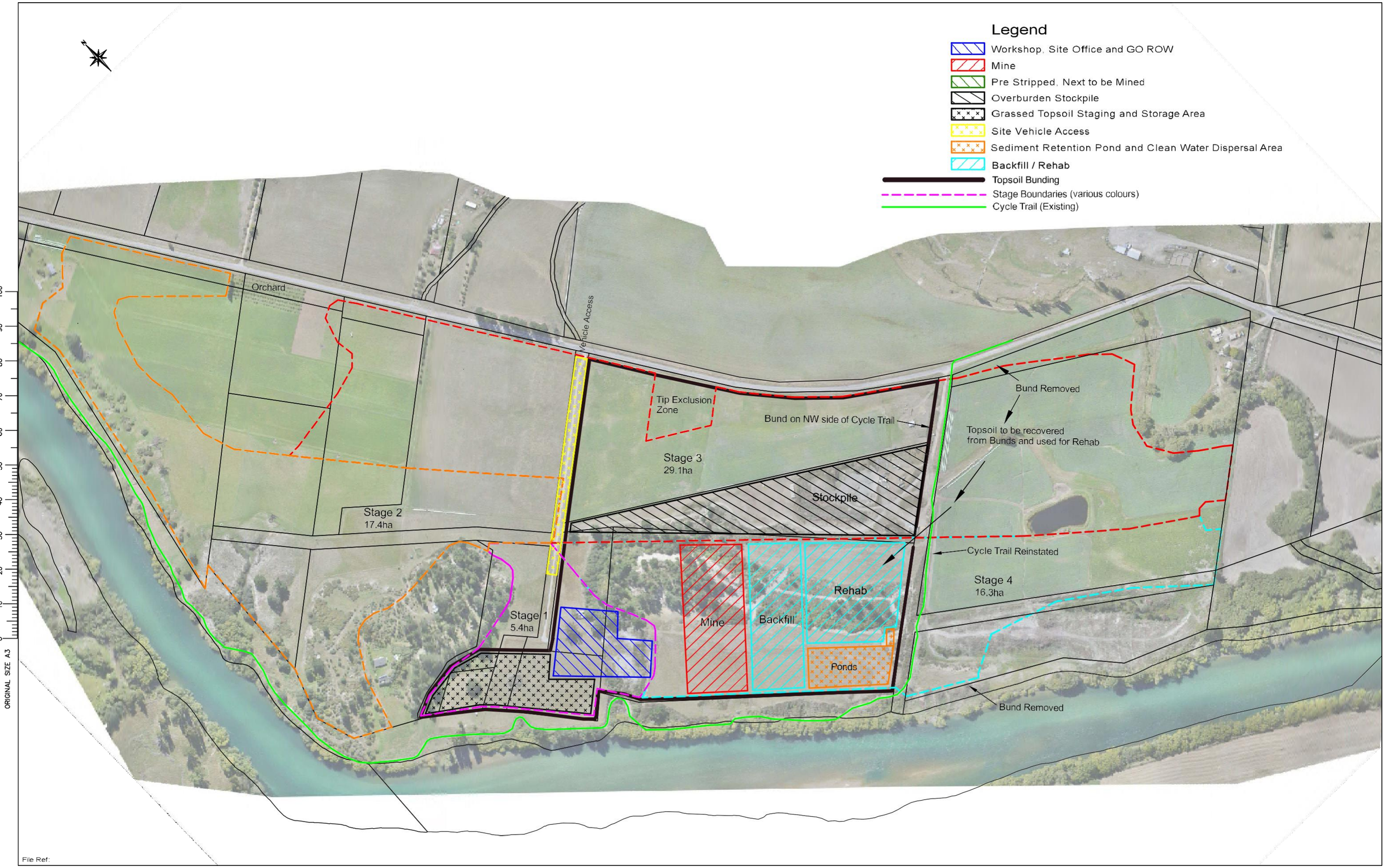
(No.	Amendments	Drawn	Date(

Site Plan - Stage 4 Mid

Millers Flat Alluvial Gold Mine

Project No.:	Surveyed:
Scale: 1:5000	Designed:
Date: 13/06/2024	Drawn: JR
Sheet: 7	Checked: JR

Overview SURVEYING



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Prepared For:

HAWKESWOOD RESOURCES

No.	Amendments	Drawn	Date

Site Plan - End of Stage 4

Millers Flat Alluvial Gold Mine

Project No.: .	Surveyed:
Scale: 1:5000	Designed:
Date: 14/06/2024	Drawn: JR
Sheet: 8	Checked: JR

Overview SURVEYING

Legend

- Pizometer Location
- Well Location
- Water Augumentation System Pipeline
- Stage Boundaries (various colours)
- Discharge to Land Envelope
- Flow Measurement Points

Point Name	Coordinates (NZTM)	
MF32 (White)	1318385	4939074
MF81 (G1)	1318875	4938976
MF82 (G2)	1318937	4939018
MF95	1318494	4938815
MF105	1318309	4939630
MF31 (Green)	1318313	4939090
MF162 (Blue)	1318605	4939184
MF91	1318798	4938438
MF94	1318386	4938657
MF261	1318474	4939519
MF252	1318738	4939184
MF263	1319002	4938778
MF262	1319246	4938624
MF250	1319428	4938485
MF249	1319354	4938401
CODC Landfill Groundwater Monitoring Well	1318948	4938710
Tima Burn Flow Augmentation Discharge Point	1319450	4938509
Tima Burn Water Augmentation Well	1319219	4938097
Upper Tima Burn Flow Measurement Point	1319441	4938561
Lower Tima Burn Flow Measurement Point	1319420	4938028
Parker Well (CD13/0101)	1319066	4938260
Control Well 1 (MF261/G43/0183)	1319468	4938320
Control Well 2 (MF262/G43/1093)	1318504	4939525

Control Well 2 (MF262/G43/1093)
MF261
MF105
MF252
MF82 (G2)
MF81 (G1)
MF162 (Blue)
MF263
Tip Exclusion Zone
Vehicle Access
Upper Tima Burn Flow Measurement Point
Tima Burn Flow Augmentation Discharge Point
MF262
MF250
MF249
Control Well 1 (MF261/G43/1083)
CODC Monitoring Well
Stage 3 29.1ha
Stage 2 17.4ha
MF32 (White)
MF31 (Green)
Discharge to Land Envelope
Discharge to Land Envelope 2
MF95
Stage 1 5.4ha
Stage 4 16.3ha
Parker Well CD13/0101
Tima Burn Water Augumentation Well
Lower Tima Burn Flow Measurement Point
MF91
Discharge to Land Envelope 3
MF94

ORIGINAL SIZE A3

File Ref:

Prepared For:

HAWKESWOOD RESOURCES

No.	Amendments	Drawn	Date

Millers Flat Alluvial Gold Mine

Project No.: .	Surveyed:
Scale: 1:5000	Designed:
Date: 24/06/2024	Drawn: JR
Sheet: 1f	Checked: JR

Overview SURVEYING

WaterForce
wise with water

Legend

Water Supply Pipe

Water Connections

Matthew Benton
WaterForce Cromwell
M 027 577 9551
P 03 445 4008
E : mbenton@waterforce.co.nz

Sheet : 1 *of* 1

Scale : NTS

Date : 12.06.24

Water Infrastructure Within Mine Footprint

Notes:

1. These drawings have been prepared for the benefit of Hawkeswood Mining Limited with respect to the particular brief given to us and it may not be relied upon in other contexts or for any other purpose without our prior review and agreement.

Legend:

- ORC Mapped Flood Hazard
- Site contours, 10 m Major interval, 1 m Minor interval
- Visual Bunding
- Stage 1
- Stage 2
- Stage 3
- Stage 4

SCALE 1:5000

0 50 100 150 200 250 (m)

GEOSOLVE
Level 1, 70 MacAndrew Road, South Dunedin
www.geosolve.co.nz

DRAWN	WCG	Sep.23
DRAFTING CHECKED	JAS	Aug.23
APPROVED	NW	Aug.23
CADFILE: 230526.dwg		
SCALES (AT A3 SIZE): 1:5000		
PROJECT No: 230526		

Hawkeswood Mining Limited

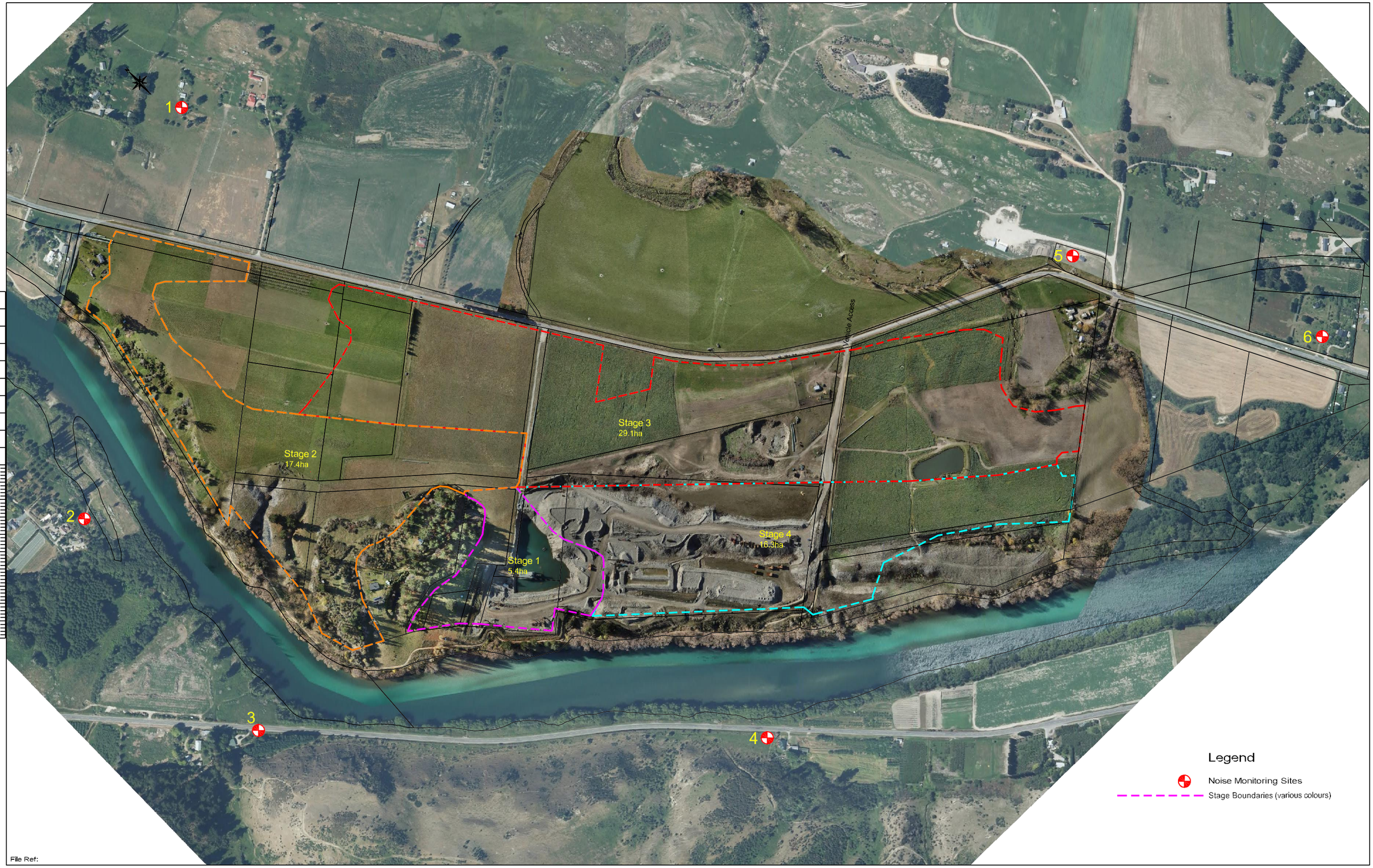
1346-1536 Teviot Road, Millers Flat

Flood Hazard Assessment

Site Plan

FIG No: Figure 2

REV. 0



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File Ref:

Prepared For:

HAWKESWOOD RESOURCES

No.	Amendments	Drawn	Date

Noise Monitoring

Millers Flat Alluvial Gold Mine

Project No.: .	Surveyed:
Scale: 1:6000	Designed:
Date: 05/06/2024	Drawn: JR
Sheet: 1	Checked: JR

Overview SURVEYING

A. 1334 Teviot Road

D. 5280 Ettrick-Raes Junction Road

C. 5330 Ettrick-Raes Junction Road

B. 1535a Teviot Road

Eagle Technology, Land Information New Zealand, GEBCO, Community maps contributors

LEGEND

- Site extent
- Houses
- Sensitive receptor management zone
- 400m radius

Wind Rose

- 2-6 km/h (60.0%)
- 7-12 km/h (26.3%)
- 13-19 km/h (9.4%)
- 20-30 km/h (0.78%)

DUST MANAGEMENT PLAN: SENSITIVE RECEPTOR MANAGEMENT ZONES

2753-22 | Hawkeswood Mining Ltd

17/06/2024 SCALE: 1:14,000 @A3

SOURCE: LINZ

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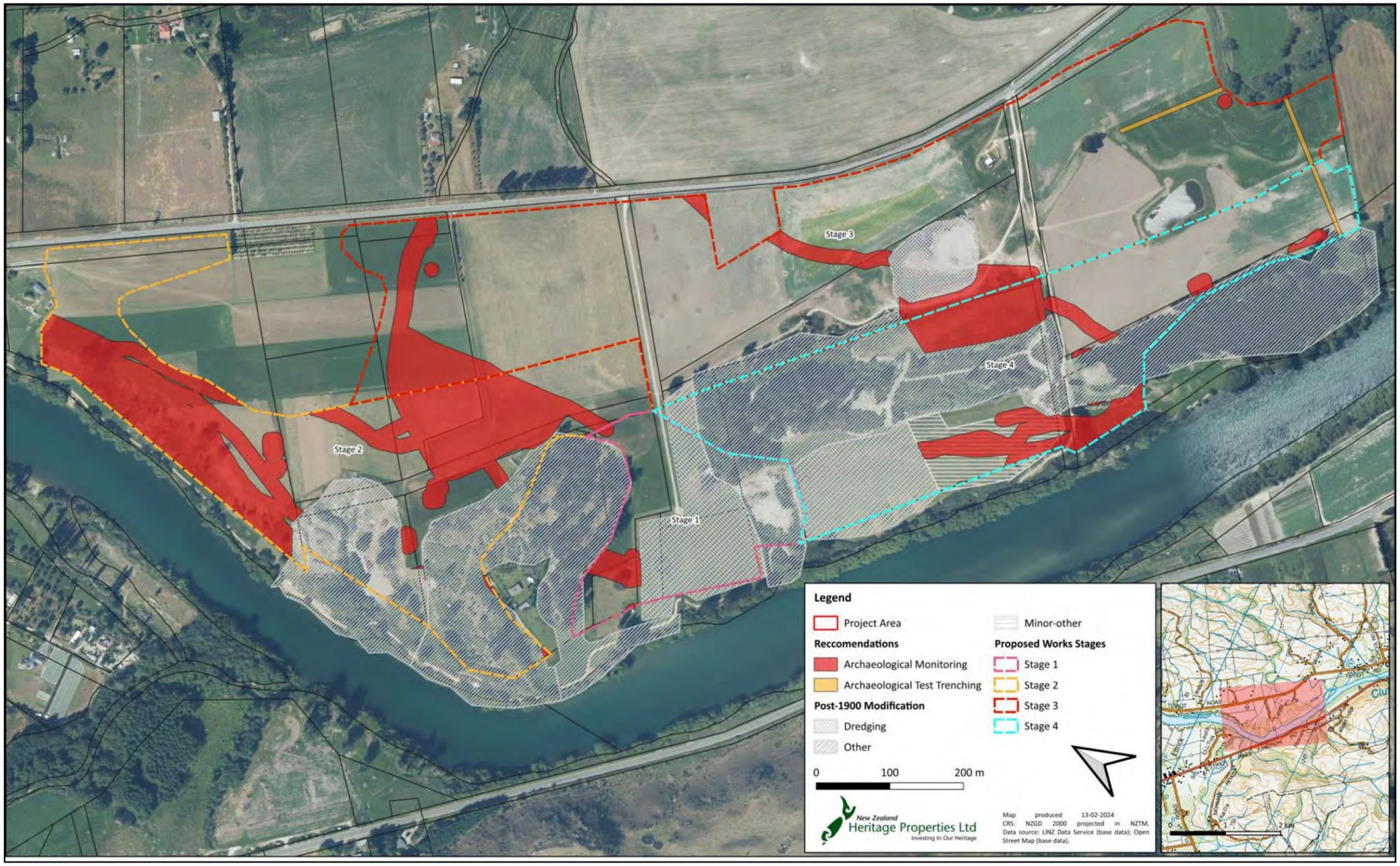


Archaeological Monitoring Plan

Legend

Topsoil Bunding 4m high

Topsoil Bunding 3m high

Orchard

Stage 2
17.4ha

Stage 1
5.4ha

Tip Exclusion Zone

Stage 3
29.1ha

Stage 4
16.3ha

ORIGINAL SIZE A3

File Ref:

Prepared For:

HAWKESWOOD RESOURCES

No.	Amendments	Drawn	Date

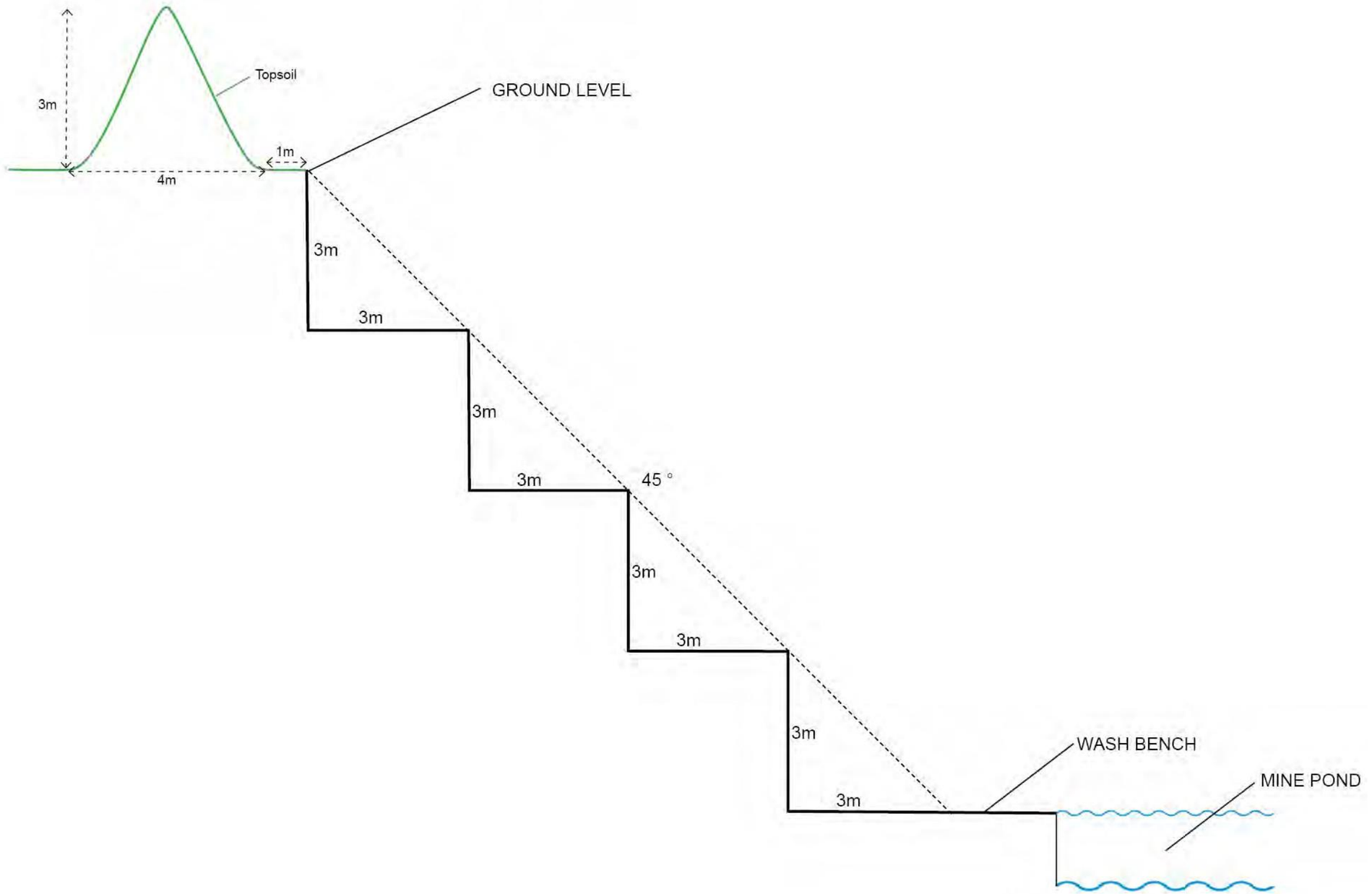
Bunding Plan

Millers Flat Alluvial Gold Mine

Project No.: .	Surveyed:
Scale: 1:5000	Designed:
Date: 18/06/2024	Drawn: JR
Sheet: 1	Checked: JR

Overview SURVEYING

TYPICAL MINE BUNDING (3m) AND BATTER DESIGN



MILLERS FLAT MINE

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21/06/2024

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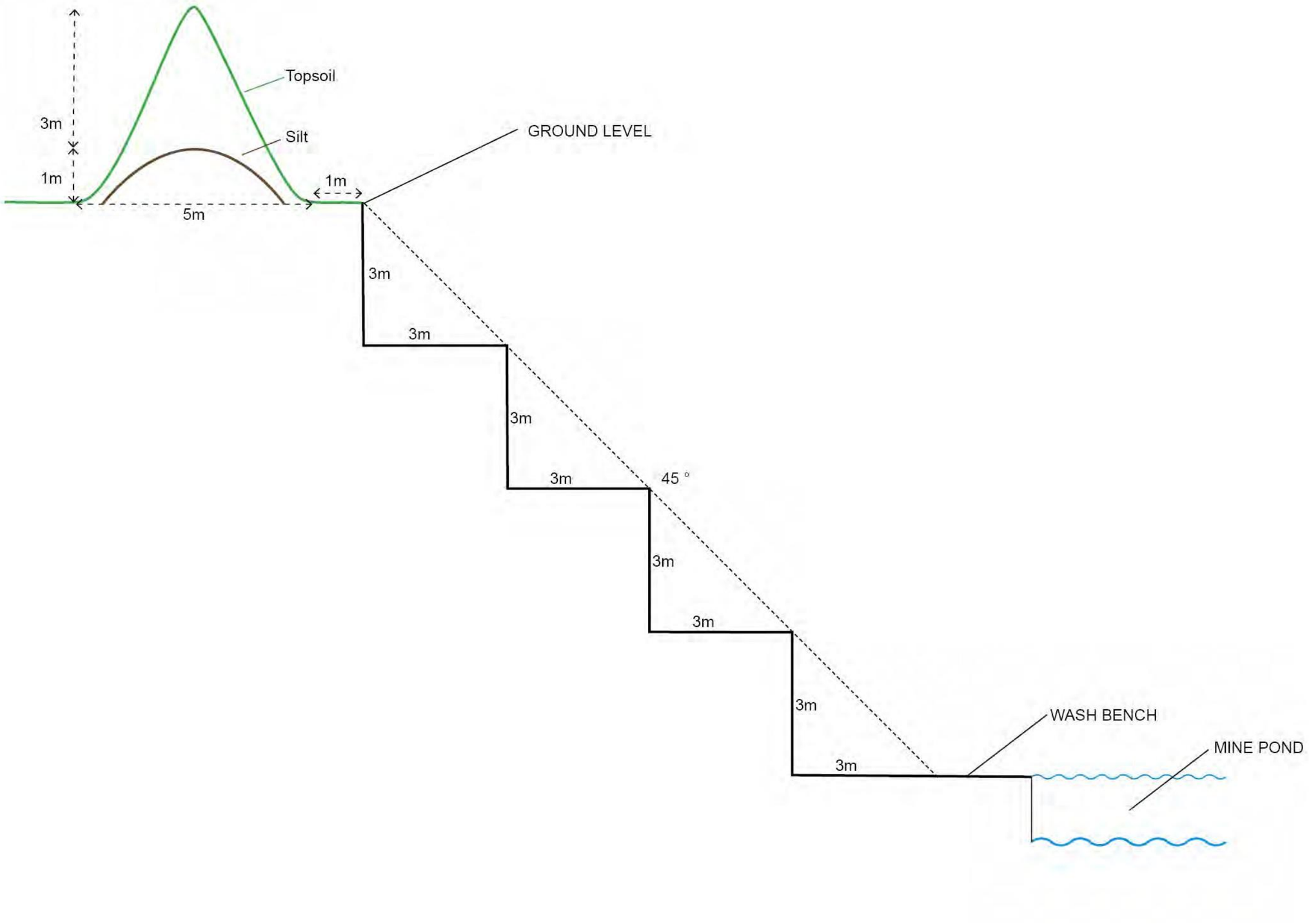
TYPICAL MINE BUNDING (4m) AND BATTER DESIGN



MILLERS FLAT MINE

2753-22 | HAWKESWOOD MINING

21/06/2024

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LEGEND

- Site
- Wells

LOCATION OF WELLS IN CONDITION 7 OF RM23.819.02

2753-22 | Hawkeswood Mining Ltd

23/08/2024 SCALE: 1:8,000 @A3

SOURCE: LINZ, Otago Wells

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LEGEND

Site

Gridlocations

GRID COORDINATES REFFERRED TO IN CONDITION 10 OF RM23.819.03

2753-22 | Hawkeswood Mining Ltd

23/08/2024 SCALE: 1:6,500 @A3

SOURCE: LINZ

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