From: Josie Burrows

Sent: Thursday, 3 August 2023 10:24 a.m.

To: Josie Burrows

Subject: E from applicant containing s92 response part 1

Attachments: Response to further ORC S92 request for Cold Gold Clutha Ltd without

E3.pdf

Sensitivity: General

From: Darryl Sycamore

Sent: Tuesday, 25 July 2023 3:00 pm

To: Josie Burrows

Subject: RE: [#TM-230327] Response to further s92 request

Hi

Here is the s92 without the E3 report attached.

regards

Darryl Sycamore

Resource Management Planner

03 477 4783

021 125 5554 330 Moray Place darryl@terramark.co.nz Dunedin 9016

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Level 1

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Sensitivity: General

From: Darryl Sycamore

Sent: Tuesday, July 25, 2023 2:21 PM

To: Josie Burrows <

Cc: Kirstyn Royce < ; Peter Hall < >; Rebecca Jackson

Subject: RE: [#TM-230327] Response to further s92 request

Hi Josie

I cannot recall the Nevis River consent decision number, but I do know the applicant was Mark Skinner. Another in the Nevis is Mokihinui Gold Ltd which recently has a renewal and TMOTW was certainly considered.

The other decisions are-

RM20.325

RM21.235

RM21.243.01-01

RM21.431.01-03

Attached is the E3 report.

We do not intend to consult further with Aukaha as Hokonui have a blanket position to oppose dredging consents.

I do not see the need for a pre-application meeting and are eager to get the hearing date set.

Kind regards

Darryl Sycamore

Resource Management Planner

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From: Josie Burrows

Sent: Tuesday, July 25, 2023 2:08 PM

To: Darryl Sycamore

Cc: Kirstyn Royce ; Peter Hall ; Rebecca Jackson

Subject: RE: [#TM-230327] Response to further s92 request

Hi Darryl,

Thank you for the s92 response.

Are you please able to:

- Provide the ORC consent numbers for the mining permits referenced in relation to the mauri / Te Mana o te Wai question.
- Send another copy of the E3 memo it has just come through quite blurred and difficult to read Table 1.

Also could you please advise us as to your intentions around further engagement with Aukaha and whether you would like us to organise any pre-hearing meetings with the submitters? Following confirmation of this matter we can look to organise potential hearing dates.

Kā mihi, Josie

Sensitivity: General

From: Darryl Sycamore

Sent: Tuesday, 25 July 2023 9:15 am

To: Josie Burrows

Cc: Kirstyn Royce ; Peter Hall

Subject: [#TM-230327] Response to further s92 request

Hi Josie and Kirstyn

Please find attached my reply to your most recent s92 request.

Kirstyn I have included you as I have made comment to the noise complaint that I advised you both of last week as a clarification for the panel.

Cheers and kind regards

Darryl Sycamore

Resource Management Planner

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OUR REF: 230327

18 July 2023

Josie Burrows for the Otago Regional Council 70 Stafford Street Private Bag 1954 DUNEDIN 9054

Dear Josie

RE: Reply to additional s92(1) request

On behalf of Cold Gold Clutha Limited, we submit our response to the further information request to the Otago Regional Council for resource consent to carry out suction dredge gold mining in the Clutha River.

Clarification Statement

The additional s92 request also provides an opportunity to formally record for the Hearing Panel the email I sent yourself and Kirstyn Royce (for CODC and QLDC) on 10 July 2023 regarding a clarification of a statement made in the consent applications.

That email read:

Today I become aware of some information which could be interpreted as inconsistent with a statement made in the consent applications. As some background, Cold Gold did not obtain consent from CODC to breach the 55dBA L10 limit in terms of Rule 4.7.6E that applies to the Water Surface And Margin Resource Area under Rule 5.7.4C as the thresholds for the zone would not be exceeded. I was of the understanding there had been no complaints received from the operation of the dredge over the previous ten years operating between Roxburgh and Tuapeka. This statement was not correct.

In 2013 the Brown family who live near Ettrick made a complaint to the CODC about noise. This was assessed by Council and found to be 43dBA at the boundary some 40-50 metres from their dwelling. There was no breach of Rule 4.7.6E(a) and the complainants did later acknowledge to Council their noise concerns had reduced as the dredge moved up the river.

It would be appropriate to consider my previous statement regarding no complaints in the context that there had been no complaints where a breach of any rule or consent condition was found to have occurred.

Further Information Request

Our response to the additional information sought is detailed further below. In your email associated with the further information request, you make the statement that

"Based on information available so far, there is insufficient information to assess the effects of the proposal on various cultural values, including the mauri of the water and whether the proposal gives effect to Te Mana o te Wai.

This is a critical matter to the over-arching proposal and the ability to assess against the provisions of the National Policy Statement for Freshwater Management (in particular Policy 1 – Freshwater is managed in a way that gives effect to Te Mana o te Wai), the Regional Policy Statements and the Regional Plan: Water for Otago.

Surveying, Planning and Engineering Consultants

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BALCLUTHA

I strongly encourage you to engage with Aukaha on these matters prior to a hearing, as I consider it could result in delays during the hearing process.

Could you please advise us as to your intentions around further engagement with Aukaha and whether you would like us to organise any pre-hearing meetings with the submitters? Following confirmation of this matter we can look to organise potential hearing dates."

I disagree with the statement that there is insufficient information to assess whether the proposal gives effect to Te Mana o te Wai. This has been set out in some detail within the application at a level of assessment far greater than any other dredging consent application within the Clutha River catchment.

Te Mana o te Wai

In my s92 dated 19 April 2023 (to the ORC and QLDC) I provided a summary of assessments made by independent hearing commissioners for a number of other suction dredge mining consent applications against Te Mana o Te Wai. Consent was required as those waterbodies have ecology considered sensitive to disturbance and are appended to Schedule 7 of the Regional Plan:Water. The permitted activity rule for suction dredge mining stipulates dredging is not permitted in waterbodies identified in Schedule 7 and therefore consent is required irrespective of the dredge size.

These applications were for-

- The Pomahaka River for two separate consent applications each using a six inch dredge,
- the Clutha River being the consents authorising Cold Gold Clutha to mine the middle reaches of the river,
- The Nevis River using an 8inch dredge and a 20ton excavator, and
- Kye Burn using a 6 inch dredge,

The first examples were all been assessed in 2021 and rely on three different independent ecological peer reviews. They were each assessed against the NPSFM and Te Mana o Te Wai.

<u>Jens Schumann – Pomahaka River (Mining Permit 50371)</u>

This permit was to use a 6inch dredge within 39 hectare mining permit. The Pomahaka River is highly regarded for the presence of threatened galaxiid species, is a Statutory Acknowledgement area and is a tributary of the Clutha River.

The Department of Conservation opposed the application in relation to ecological and heritage values and Te Runanga o Hokonui opposed the application due to cultural values and the proposal being inconsistent with Te Mana o te Wai.

The application was assessed by E3 Scientific for the applicant and peer reviewed by Babbage Consultants for the Council. The ecological assessment recommended the consent be granted subject to conditions. It was found the application would result in less than minor effects and was consistent with Te Mana o te Wai. This consent was approved by an independent hearings commissioner subject to conditions of consent.

The Big Nugget Company Ltd – Pomahaka River (Mining Permit 41447)

This application was to use a 6-inch dredge with a 46ha area. Like the Schumann consent, the river has significant ecological values, is within a Statutory Acknowledgement Area and is a tributary of the Clutha River.

The application was externally peer reviewed by independent ecologists who recommended consent be granted subject to conditions.

Hokonui Rūnanga opposed the application due to (in their view), insufficient evidence of effects of the suction dredge mining on instream benthic environments. The application was assessed by Council planners as being generally consistent with the Te Rūnanga o Ngāi Tahu Freshwater Policy Statement 1999.

The adverse effects were considered to be less than minor and found to be consistent with Te Mana o te Wai. The consent was approved by an independent hearings commissioner.

Cold Gold Clutha Limited – Clutha River/ Mata-Au (Mining Permit 53215)

This consent was for Cold Gold Clutha Limited over 901ha of the Clutha River/ Mata-Au. The Clutha River is a Statutory Acknowledgement River. This was a replacement permit as the dredge had operated in the river for the previous decade.

Council staff found, the proposed activity will not adversely affect values of Schedules 1A 1AA, 1B, 1C and 1D, nor will it affect the natural character or amenity values associated with the Clutha River/ Mata-Au. The application was assessed as consistent with the policies of the NPS-FM and Te Mana o te Wai.

The consent was approved under delegated authority on a non-notified basis subject to conditions of consent.

45 South Mining Limited - Kye Burn (Mining Permit 60566)

This proposal was to operate a 6-inch dredge with 40.3ha of Kye Burn. Whilst not part of the Clutha River Statutory Acknowledgement Area, it provides some context for mining in a river with indigenous species threatened with extinction (being the Central Otago roundhead galaxias, *Galaxias anomalus* and Taieri flathead, *Galaxias depressiceps*). These species were identified by the Department of Conservation (DoC) in their submission who highlighted the Kye Burn was one of a handful of reference rivers for galaxiid preservation.

Dr Richard Allibone from Waterways Consulting Limited provided an ecological assessment of the application on behalf of Council's Resource Science Unit. Dr Allibone concludes that the potential impact of the activity will be less than minor in terms of direct disturbance on the fish populations.

The applicant has also proposed a condition that limits the extent of the downstream sediment plume from the mining to 200m. Dr Allibone accepted the effects associated with a 200m sediment plume would be less than minor in terms of fish populations or ecology.

The effects on the mobile and non-mobile fauna was assessed as less than minor and the proposal was considered to be consistent with Te Mana o Te Wai. Consent was granted subject to conditions by an independent hearings commissioner.

Golden Bush Mining Limited - Nevis River (Mining Permit 41851)

Golden Bush Mining sought to suction dredge mine a 89ha portion of the Nevis River using up to an 8-inch dredge. They also sought to use a 20ton excavator in the bed of the river to move gravels and rocks. The Nevis is part of the Clutha River Statutory Acknowledgement Area.

The Nevis is appended in Schedule 7, and the ecology is considered sensitive to suction dredge mining due to the presence of the Nevis galaxias classed as 'Nationally Vulnerable' being the same threat status as Hector's dolphins".

This application was processed via the limited notification pathway and approved subject to conditions. The ORC's Science Unit considered the effects of the activity on the ecology was less than minor. The use of the excavator in the riverbed was approved with the exception of a short reach known as 'The Dell.' It is relevant to note this application was considered prior to the introduction of the NPSFM.

The applications described and approved above are within Schedule 7 waterbodies considered far more sensitive to bed disturbance and suction dredge mining than that of the Upper Clutha River. In my opinion it would lack objectivity to conclude dredging in the smaller more-sensitive waterbodies is consistent with Te Mana o te Wai, yet dredging in the Upper Clutha River is not.

Cultural Values, Mauri & Te Uta ki Tai

Cold Gold Clutha found the Cultural Impact Assessment (CIA) insightful. It provides a fuller understanding of the history and context of the catchment and will be provided to employees working on the dredge to assist in their own understanding of the catchment's history and values.

The statements made in the CIA are however unable to be countered by an expert with the necessary 'cultural competencies.' Ngai Tahu experts will not provide evidence to challenge that of Aukaha or Te Ao Marama which is unsurprising given they are part of a wider family. The inability to contest the views of experts in a

consenting process is complicated as there is no counter-argument to test any statement against. Publicly available reports, plans and court evidence do however provide useful contextual information. Whilst not making the presumption I can consider the information through a Te Ao Māori lens, I can form both a personal and professional opinion of the relationship between values identified both collectively and individually against the activity.

Environment Southland was the first regional council in the country to adopt Te Mana o te Wai in the planning architecture. As part of that process, Ngai Tahu ki Murihiku led nationally in developing scientific and expert reports on and developing the concept of Te Mana o te Wai. The concepts developed by Ngai Tahu ki Murihiku of mauri, te uta ki tai and indicators of health are helpful in understanding how an activity may affect cultural values. Whilst the narrative relates to Southland, there is a presumption those values carry some relevance to other regions, especially given the rohe of Ngai Tahu ki Murihiku extended into the Otago anterior.

With respect to Te Mana o te Wai, the concept has been a matter of national significance since it was first introduced in the NPSFM in 2014. Te Mana o te Wai requires that priority is given to the care of waterbodies, their mauri, in order that they can then support a range of relationships and uses¹. The concepts of mauri and Kia Uta Ki Tai are central to Te Mana o te Wai.

The Te Rūnanga o Ngāi Tahu ki Murihiku report² 'Wai' provides some context to the definition of mauri and notes-

"that scientifically Mauri can mean:

- Meeting the basic health and safety needs of humans, specifically the provision of freshwater for drinking
- Continuity of flow from the mountain source of a river to the sea.
- Life-supporting capacity and ecosystem robustness.
- Protecting traditional cultural values and uses.
- Protecting biodiversity.
- Aesthetic qualities e.g. clarity, natural character, depth and velocity of flow, and
- Providing for economic activities."

No doubt the attribute list of values above is not exhaustive but it is nonetheless useful to assist in defining mauri, and what may or may not adversely impact mauri in an Otago context. It is my opinion the proposed mining application will not adversely impact any of the values identified in the list above. This is supported by personal experience suction dredge mining, and the ecological assessments for both the applicant and the Regional Council. My conclusion is consistent with the consent decisions approved by independent commissioners for other unrelated consent applications for dredging in Schedule 7 rivers within the Clutha catchment.

At a catchment level, the concept 'Ki Uta Ki Tai' considers a landscape in its entirety. Ki Uta Ki Tai acknowledges that rivers connect the entire landscapes from the mountains to the sea, and conversely that rivers are linked to the land. This concept acknowledges the overall health of a river can be affected by the deterioration at one point of its length i.e. what happens at one point can affect all parts of the catchment, and further, all parts of the surrounding environment³. Within this paradigm if one place is affected then it impacts on all parts of a catchment, just like if one part of a body is hurt then it impacts on the whole of your body⁴.

¹ Draft Murihiku Southland Freshwater Objectives – providing for hauora, the health and well-being of waterbodies in Murihiku Southland, 2020, (ISBN #978-0-909043-67-4).

² Wai – Ngai Tahu ki Murihiku 2019, page 11.

³ Corry, S. and R. Puentener. 1993. Tikanga Māori Cultural, Spiritual and Historical Values of the Waiau River. A report for the Iwi Task Group of the Waiau River Working Party. February 1993.

Kitson J, Cain A, Williams E, Blair SR, Johnstone MNTH, Davis J, Grey M, Kaio A, Anglem R, Young R, Whaanga D. 2018. Developing a Murihiku Cultural Water Classification System. Report prepared for the Ngā Kete o Te Wānanga Murihiku Rūnanga Advisory Group, Te Ao Mārama Inc and Ōraka Aparima Rūnaka. NIWA, Wellington, NZ.

Ngai Tahu Indicators of Health are similar to NPSFM Attributes in the sense that they create culturally relevant measures to assess impacts on values⁵. The following list was submitted⁶ as part of the Proposed Southland Water & Land Plan court hearings and provide a useful context to the proposal by Cold Gold Clutha.

Form Quality Quantity Shape of the river Catchment water quality Flow characteristics Comparison with historic state Catchment land use Flow variations/flow regime Pools and overhanging banks Clarity of the water Flood flows Natural river mouth environment Turbidity Sound of flow Wetland condition Sediment in the river Movement of water Tributary presence/condition Estuary siltation Movement of gravel Ephemeral stream presence/condition Smell of the water Connectivity Spring presence/quality/condition Periphyton **Aquatic Life** Hydro scheme modifications Microbial pathogens Indigenous vs exotic species **Riparian Margins** Faecal contamination Species abundance and diversity Nature/extent of riparian vegetation Cyanobacteria Threat classification of species Riverbank condition Eutrophication: Population trends Cover and debris in stream Food Sediment contamination Habitat corridors Habitat Contaminated sites Stock access Consented discharges to water Temperature¹ **Cultural Practice and Use** Oxygen Uses of the river Lake quality/condition Nitrate toxicity Use of the river margin Groundwater quality/condition Ammonia toxicity Safe to gather plants Estuary quality/condition Disease and parasite load Fish are safe to eat Land and soil quality/condition Life cycle stages and triggers Water is safe to drink Drain and small stream clearance Barriers to fish passage River name as an indicator Harvesting experience and methods Catch rates Transportation and accessibility Legislative and seasonal access barriers Contaminated kai species Condition of resources (eg kelp) Diversity of resources present Perception of health risk Desire to return to a site

Fig. 1 - Cultural Indicators of Health

The Indicators of Health is an extension from the earlier model⁷ which included assessment against both the Taieri and Kakanui Rivers in Otago. Again, the reference list was not promoted as an exhaustive list of Ngāi Tahu Indicators of Health but an illustration of the range of considerations of importance to Ngāi Tahu.

Having considered the list of Cultural Indicators of Health above, it is my opinion the proposed mining by Cold Gold Clutha will have a less than minor effect on any of those values, either collectively or as an individual measure. I consider there is sufficient information to assess the effects of the proposal on various cultural values, including the mauri of the water and whether the proposal gives effect to Te Mana o te Wai.

⁵ Evidence of Ngā Rūnanga (Waihōpai Rūnaka, Te Rūnanga O Awarua, Te Rūnanga O Ōraka Aparima, and Hokonui Rūnaka) and Te Rūnanga O Ngāi Tahu at the Proposed Southland Water and Land Plan hearings, 2019.

⁶ Memorandum of Counsel for Ngā Rūnanga regarding Cultural Indicators of Health, 29 November 2019 Proposed Southland Water and Land Plan.

⁷ A Cultural Health Index for Streams and Waterways: A Tool for Nationwide Use. G. Tipa & L. Teirney 2006 for the Ministry of the Environment, ISBN: 0-478-25950-6.

Section 92(1) Questions

With respect to the s92(1) request, I can advise-

1. Please provide a full list of the proposed conditions of consent.

Please find attached a full suite of the revised conditions. These are provided in Appendix A included within the E3 Scientific assessment.

For clarity these have evolved following the notification period. Changes relate to-

1. A revised condition relating to nesting bird colonies. For completeness Cold Gold Clutha are comfortable with a condition specifying a 250m setback from any bird nesting colonies during the nesting season.

I note the ORC's ecologist suggested this condition was unnecessary in this case, and suggested the condition could be applied to only within the slip area. The applicant is happy to apply the bird nesting condition to only the slip area but are mindful the notified version included a setback condition over the full tenement and that the Department of Conservation elected not to submit on the proposal and would be precluded from the hearing discussion about the merits of its retention or removal.

- 2. The submission by Fish & Game indicated they did not wish to have yearly consultations with the applicant to identify 'no mining areas during sports fish spawning season.' F&G promoted an alternative suite of conditions which are now included in the current iteration of proposed conditions. Further consultation with F&G confirms they are satisfied with this approach.
- 3. The additional consent condition promoted by Aurora Energy has been carried into the current iteration of proposed consent conditions.
- 2. Please provide evidence from e3scientific as to whether their Ecology Report dated July 2022, including conclusion that adverse effects will be less than minor, still stands based on the proposed conditions.

Appendix A provides a further report assessing the suitability of the proposed consent questions and also commenting on matters raised in your s92 request. That report concludes stating-

'In summary, it is my opinion that the residual aquatic ecological impacts of the suction mining dredge operation will be low with the proposed mitigations and avoidance measures as outlined in the attached (Appendix 1) proposed consent conditions".

3. Please advise whether there are any contaminants including hazardous substances or hazardous wastes that are discharged during the operation of the dredge.

As noted in the application, there will be no contaminants (except for the remobilisation of instream sediments) discharged to water.

4. When working with hazardous substances and hazardous wastes such as bilge water there is a risk of spills or discharges. Please advise how spills or discharges from motors, bilge water management and refuelling are avoided.

It is my understanding these matters were articulated as part of the site visit onto the dredge whilst it was operating. Refuelling is carried out in an approved manner such that no loss to the environment occurs. The applicant has a clean record of over ten years mining with no complaints, compliant Council audits or concerns about discharges as part of the operation.

In relation to the submission by a former employee, the claims are simply not credible about "pumping 1000's of litres of diesel directly into the clutha" or "the hydraulics leak constantly, sometimes for weeks straight onto the deck and into the Clutha" or "a lot of oil leaks from motor direct into the clutha!!!". Had there been constant

oil/ hydraulic fluid leaks to the river, or 1000's of litres of diesel discharged to the river I am sure there would have been complaints and investigations to that effect. With respect to the photographs provided by that submitter, these do not provide any credible evidence in support of the claims.

<u>5. For clarity of understanding, please provide diagrams, and photographs if available, showing the different anchoring methods.</u>

Cold Gold Clutha was asked to provide additional detail on the anchoring methods. I understand this was explained during the site visit. No water users have complained about the anchoring system over the previous decade. Cold Gold advises-

CGC uses two 500kg Bruce anchors for dredging with anchor warps crossed. Crossing the anchor wires provides lateral stability and control of the dredge via the anchor winches which are controlled by foot pedals by the dredge operator. The crossed warps typically submerge directly in front of the dredge within 10-20m and, while there are variables from loading, etc, typically are around 0.5-1.0m deep within a further 5m and continue to sag towards the bottom thereafter. They are up to 250m long. Anchors are placed (and recovered) by the dredge when under way. To ensure the anchors can't fail (lose grip) the anchors are additionally backed off to an adjacent willow or rock with a wire rope. These usually submerge within 5m of the bank or rock. When on long warps (>150m), we sometimes use "side wires" to enhance the spread of the anchor wires for improved stability. Similar to the backing wires, a wire rope is affixed partway down the anchor warp and attached to a tree or exposed rock. These too typically submerge well underwater within metres. None of the above impede waterway access to other vessels. If side lines are assessed to extend to a point where they could potentially pose a risk to other craft, they are marked with a red buoy.

Stern anchors are not used for day-to-day dredging operations. They are occasionally deployed when the dredge is alongside the riverbank during maintenance or a flood event. This is to keep the stern of the dredge from potentially contacting the bank.

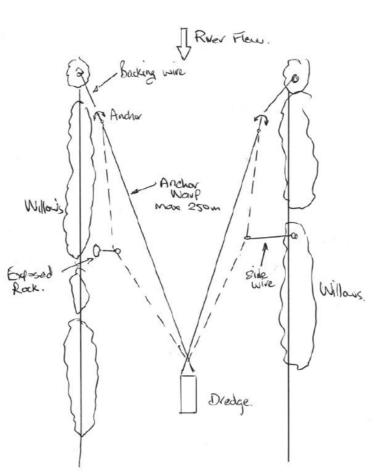


Fig. 2 - Full Anchor Configuration



Fig. 3 - Photo of Anchor Warps (taken July 2023)



Fig. 4 - Photo of Anchor Warps Dipping into Water Column (taken July 2023)

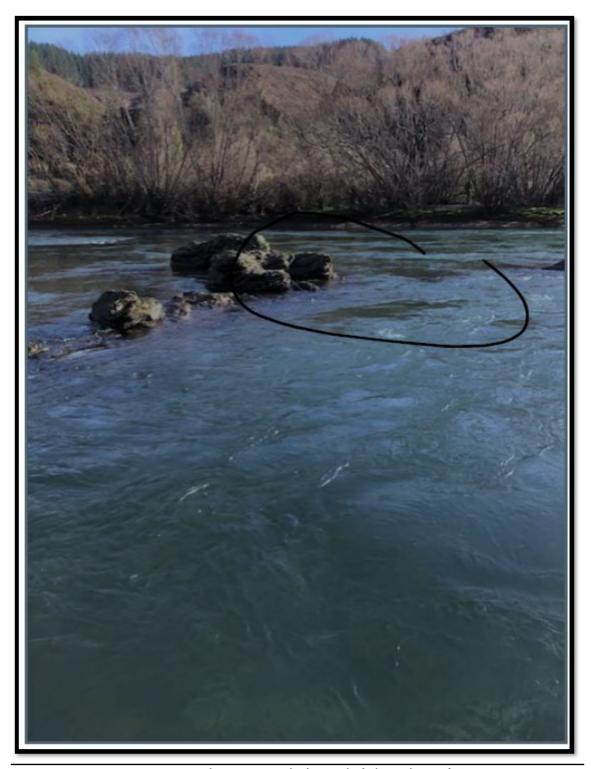


Fig. 5 - Anchor Warp Attached to Rock (taken July 2023)

6. Please advise the methodology as to how *Lagarosiphon* will be identified, and who will identify *Lagarosiphon*, prior to dredging to avoid dredging within *Lagarosiphon* beds.

As part of forward planning, new sites for mining are identified and then assessed. This involves time observing the watercourse from the riverbank and also from the tender. Any beds of *Lagarosiphon major* will be easily observed during scouting trips.

7. Please confirm the level of effect on aquatic ecology values, as per the EIANZ guideline criteria, associated with a 200 m zone of reasonable mixing, and justify why this is an appropriate zone of reasonable mixing distance. Note: The recommendation in submission by Fish and Game that the zone of reasonable mixing be 100 m.

This has been assessed by E3 Scientific and determined to result in less than minor effects. As previously stated, a sediment plume trending towards 200m from the dredge will not contain any additional sediment loading, it is primarily due to the current pushing the finer fractions downstream quicker than they can settle out. The ORC does not have a useful rule for defining the zone of reasonable mixing as it is focused on the likes of farm effluent to water. It is not unreasonable to apply a zone of reasonable mixing before a water sample is taken for analysis, and other Councils clearly provide a number of examples where a 200m zone of reasonable mixing is anticipated and promoted. I see no reason why in the absence of any useful ORC definition that the definitions of other Councils are not applied.

Furthermore, a 200m zone of reasonable mixing was accepted by an Independent Commissioner with respect to an application to dredge in the Kye Burn, a watercourse with highly sensitive and threatened ecology. Ecologists for the applicant and Council concluded the effects of that 200m zone would have less than minor effects on the ecology. The Clutha River is not a sensitive environment by comparison, which is why it is not appended in Schedule 7, but the Kye Burn is.

8. Please advise whether the applicant intends to engage with mana whenua to address the information gaps required for Aukaha to determine the potential level of effect on the aforementioned values. Note: This is a critical matter to the over-arching proposal and the ability to assess against the provisions of the National Policy Statement for Freshwater Management, Regional Policy Statements and the RPW.

The applicant has in good faith consulted with Rūnaka and commissioned the Cultural Impact Assessment. Of the seven Rūnaka that cover the Otago and Southland areas, only Hokonui opposed the application to my understanding. Hokonui Rūnaka hold a philosophical opposition to suction dredge mining. This has been observed over multiple consent applications and pre-application discussions with dredgers. There is little benefit in further discussion when one party is not prepared to negotiate.

With respect to the NPSFM and RPS, an assessment has been provided and it is my opinion you do have sufficient information to make a determination of the potential effects on river and cultural values.

9. The CIA considers disturbance of the bed should be avoided in the vicinity of all tributaries and not just those wider than 1m. The e3scientific memo dated 19 April 2023 considers that it would be best to map and confirm the agreed tributary exclusion zones during the consenting process. Please provide a map showing the proposed tributary exclusion zones.

A map has been prepared by E3 Scientific setting out what tributary confluences should be avoided for the protection of ecological values. This is included in Appendix 2.

I trust this is useful to assist in your understanding.

Yours faithfully **Terramark Ltd**

Darryl Sycamore

Resource Management Planner