Appendix B: Policy Assessment

Where a provision is shaded green or blue this indicates that that provision has been appealed. Green shading is used for non-freshwater planning instruments, and blue shading is used for freshwater planning instruments.

Only objectives and policies of relevance to this application are included below.

Colour code:

	contrary
	inconsistent
	partially consistent
	consistent

National Policy Statements

National Policy Statement for Freshwater Management 2020 (NPS-FM)		
Provision	**Assessment**	
Policy 1: Freshwater is managed in a way that gives effect to Te Mana o te Wai. The NPS-FM defines the concept of Te Mana o Wai as: *"Te Mana o te Wai is a concept that refers to the fundamental importance of water and recognises that protecting the health of freshwater protects the health and well-being of the wider environment. It protects the mauri of the wai. Te Mana o te Wai is about restoring and preserving the balance between the water, the wider environment, and the community."*	**Inconsistent** The primary manner by which the Applicant proposes to mitigate impacts on freshwater is through use of the MWMS, essentially recycling mine-impacted water on the site, and only discharging this to the freshwater receiving environment at times of high flow or when the discharge quality is otherwise considered suitable. However, the use of the freshwater receiving environment for the disposal and dilution of contaminants impacts upon the mauri of the wai. Taking a narrow view of freshwater 'health' and considering only the measurable water quality, this stage of MP4 in combination with ongoing effects of other mining activities will result in measurable increases of contaminants in all affected catchments. Modelling, when taken at face value, indicates that these increases are unlikely to result in degradation of water quality to the extent that ecological health is affected. However, uncertainties inherent in the modelling, combined with uncertainties about the	

	effectiveness or ability to implement the assumed mitigation measures, and the intentions of the Applicant to manage water quality in accordance with existing compliance limits, reduce confidence in this assessment. In reality, previous mining at the Macraes site has resulted in permanent changes to the freshwater (groundwater and surface water) landscape. The activities subject to this MP4 application, in combination with the existing and future effects of separately authorised mining activities, will directly contribute to the long-term contamination of groundwater, reduced baseflows to streams during mining and pit lake filling, and ongoing contamination of surface waters via diffuse discharges of contaminated groundwater and via direct discharges from pit lakes and silt ponds. These activities degrade mauri. Further, reclamation of lengths of stream bed and areas of wetland are directly proposed by this application and will permanently alter the natural characteristics and behaviours of other fresh waterbodies in those catchments, further contributing to the already extensive modification of surface waterbodies within the Macraes mining area. Watercourses must reflect their natural characteristics and behaviours to give effect to Te Mana o te Wai and to sustain the relationship that Kāi Tahu have with the watercourse. The proposal is not consistent with Te Mana o te Wai.	
Policy 2: Tangata whenua are actively involved in freshwater management (including decision-making processes), and Māori freshwater values are identified and provided for.	**Partially consistent** The Applicant has over a relatively extended period of time engaged with mana whenua in relation to this MP4 proposal, as well as in relation to the preliminary MP4 stages, and other miscellaneous applications required to ensure continuity of mining. However, as set out in the submission from Kā Runaka, the approach taken to progressively consent the MP4 project in stages, and the updates of the MP4 application material made throughout the consenting process (in response to s92 RFIs and additional changes made by the Applicant) has hindered the ability of Kā Rūnaka to holistically assess the cultural impacts of the proposal. Ultimately, the result is the application was put forward and progressed without an assessment of cultural impacts endorsed by Rūnaka.	

Policy 3: Freshwater is managed in an integrated way that considers the effects of the use and development of land on a whole-of-catchment basis, including the effects on receiving environments.	**Consistent** The application considers the cumulative effects of the proposed MP4 activities with the existing and as yet unrealised effects of past and current mining at the site. The various land-based mining activities subject of this application and others are interconnected and managed on site in an integrated manner, as are the effects on the relevant freshwater receiving environments.	
Policy 5: Freshwater is managed (including through a National Objectives Framework) to ensure that the health and well-being of degraded water bodies and freshwater ecosystems is improved, and the health and well-being of all other water bodies and freshwater ecosystems is maintained and (if communities choose) improved.	**Inconsistent** The health and wellbeing of freshwater will not be maintained. This stage of MP4 in combination with ongoing effects of other mining activities will result in measurable increases of contaminants in all affected catchments as compared to the current state. Modelling, taken at face value, indicates that these increases are unlikely to result in degradation of water quality to the extent that aquatic flora or fauna is affected. However, uncertainties inherent in the modelling, combined with uncertainties about the effectiveness or ability to implement the assumed mitigation measures, and the intention of the Applicant to manage water quality in accordance with existing compliance limits, reduce confidence in this assessment.	
Policy 6: There is no further loss of extent of natural inland wetlands, their values are protected, and their restoration is promoted.	**Inconsistent** The proposal will result in the permanent loss of natural inland wetlands, resulting in a loss of extent and values. While the Applicant has proposed to offset for the loss such that there is no net loss in natural inland wetland extent or value, as discussed in Section 6.1.2.6 and Section 6.3.6 of the s42A report, this is considered unlikely be achieved.	
Policy 7: The loss of river values and extent is avoided to the extent practicable.	**Inconsistent** The application explains how the MP4 proposal has been designed to avoid the reclamation of rivers to the extent practicable. However, functional need for the GBWRS to be located as proposed will result in a loss of approximately 430 m of extent and associated values. The Applicant proposes to compensate for this loss by protecting a substantially greater extent of river (at least 860 m) within the MEEA which contains similar or better value watercourse which include areas of adjoining riparian and wetland vegetation and considers on this basis that there will be no net loss of river extent or values. This may be	

	true in respect of values but is incorrect in respect of extent – there will be 430 m fewer metres of river extent as a result of the MP4 proposal. I would also note that water quality, ecological, and cultural values of other rivers on the site may be reduced as a result of the increased mining activity sought by the MP4 proposal. While this policy only requires the avoidance of lost extent and values *"to the extent practicable"* as the Applicant has not committed in consent conditions to implementing or even investigating many of the mitigation measures suggested by the consultants in relation to water quality, which can have significant effect on river values, I don't consider that this threshold is met.	
Policy 9: The habitats of indigenous freshwater species are protected.	**Inconsistent** Based on the predictions of water quality models, Dr Greer generally agrees with the assessment of Dr Ryder that there is no evidence to suggest that the habitats of freshwater species are likely to be adversely affected. However, the Applicant has only proposed to manage water quality to achieve compliance with existing compliance limits which allow for significant adverse effects on freshwater species. The Applicant has not assessed the effects of water quality approaching these limits. This, combined with the lack of commitment to implementing the various mitigation measures necessary to ensure the predictions of the modelling are manifested, the limitations on my inability to recommend more appropriate consent conditions because of the scope constraints, the intentions of the Applicant to manage water quality in accordance with existing compliance limits, and uncertainties inherent in the modelling predictions means that there remains potential for significant adverse effects on the habitats of freshwater species. I do not consider that this constitutes protection.	
Policy 10: The habitat of trout and salmon is protected, insofar as this is consistent with Policy 9.		
Policy 11: Freshwater is allocated and used efficiently, all existing over-allocation is phased out, and future over-allocation is avoided.	**Consistent** Surface water allocation in the Taieri catchment (in which the Coronation and Coronation North mines are located) is currently over-allocated, and there is no primary allocation available. However, the proposed 'surface water' takes are not from natural surface	

	waterbodies; rather, they are takes of water that has accumulated in pit through a combination of rainfall, surface runoff, and groundwater seepages. This surface water is therefore not primary allocation, and the taking of this water will not cause lead to further over-allocation in the Taieri catchment. Water is taken in the same manner across the central mining area and at Golden Bar. Allocation limits do not apply for these takes of water, nonetheless, there are no allocation issues in the Shag or Waikouaiti catchments. There are no mapped aquifers beneath the site and hence no allocation limits are prescribed in the RPW. The abstraction of groundwater from bores in and around pits is no more than what is required to facilitate mining and maintain stability in pits. The abstracted groundwater and surface water is used efficiently, being recycled and reused through the MWMS.	
Policy 12: The national target (as set out in Appendix 3) for water quality improvement is achieved.	**Partially Consistent** Appendix 3 of the NPS-FM states that the national target is to increase proportions of specified rivers (fourth order or greater) and lakes that are suitable for primary contact to at least 80% by 2030, and 90% no later than 2040, but also to improve water quality across all categories. Rivers are split into five categories based on two human contact water quality attributes: *E. coli* and *cyanobacteria*. The categories represent combined improvements in all regions. The proposal does not involve any discharge of *E. coli.* Nitrate-nitrogen compliance limits are set at the toxicity threshold, but this does not protect against periphyton growth. In a lot of the affected catchments, low dissolved reactive phosphorus is likely to limit periphyton blooms. However, as noted in the evidence of Dr Greer, median nitrate-nitrogen concentrations in Deepdell Creek are predicted to increase by more than 60-fold and in the Shag River by an order of magnitude. There is sufficient dissolved phosphorus in Deepdell Creek to promote algae and plant growths. Dr Greer therefore considered that there is a risk of the increased nitrate-nitrogen concentrations increasing periphyton growth to the extent that macroinvertebrates and fish could be affected. To what extent this is driven by MP4 rather than unrealised effects of other activities has not been modelled. However, it is likely that there is at least some	

	contribution of MP4 to increased nitrate-nitrogen concentrations. Therefore, there is potential for Deepdell Creek to deteriorate in relation to the *cyanobacteria* attribute	
Policy 13: The condition of waterbodies and freshwater ecosystems is systematically monitored over time, and action is taken where freshwater is degraded, and to reverse deteriorating trends.	**Consistent** Monitoring of waterbodies and freshwater ecosystems around the mine site is currently undertaken and will be continued. Where it is possible to do so given the constraints imposed by the existing consents at the site, I have recommended additional and improved monitoring for groundwater and surface water, including the explicit requirement to use monitoring data to understand trends. Conditions will also require action to be taken to address deteriorating trends.	
Policy 14: Information (including monitoring data) about the state of water bodies and freshwater ecosystems, and the challenges to their health and well-being, is regularly reported on and published.	**Consistent** Conditions require reporting of monitoring data to Council.	
Policy 15: Communities are enabled to provide for their social, economic, and cultural well-being in a way that is consistent with this National Policy Statement.	**Inconsistent** Ongoing mining at Macraes, facilitated by the MP4 proposal, will provide for the economic, and potentially social and cultural, wellbeing of employees, contractors, and businesses in small North Otago towns, as well as in the wider Otago region. However, as evidenced by the degree of inconsistency with the above policies, this is not done such that it is consistent with this National Policy Statement.	
National Policy Statement for Indigenous Biodiversity 2023 (NPSIB) – amended October 2024		
Provision	**Assessment**	
(1) The objective of this National Policy Statement is: *a) to maintain indigenous biodiversity across Aotearoa New Zealand so that there is at least no overall loss in indigenous biodiversity after the commencement date; and* *b) to achieve this:*	**Contrary** The MP4 proposal, if undertaken as proposed, will result in an overall loss in indigenous biodiversity. There will be a net loss in wetland extent, lizard populations and habitat, and vulnerable moth population and habitat because these losses cannot be adequately offset. This loss would result from all three key mining areas, but the largest losses would result from the Golden Bar proposal, followed by Coronation, and then Innes Mills.	

i. through recognising the mana of tangata whenua as kaitiaki of indigenous biodiversity; and *ii. by recognising people and communities, including landowners, as stewards of indigenous biodiversity; and* *iii. by protecting and restoring indigenous biodiversity as necessary to achieve the overall maintenance of indigenous biodiversity; and* *iv. while providing for the social, economic, and cultural wellbeing of people and communities now and in the future.*	I note that my assessment against this objective and subsequent policies would remain the same if my assessment was limited only to indigenous biodiversity within and around natural inland wetlands rather than considering all indigenous biodiversity effects.	
Policy 1: Indigenous biodiversity is managed in a way that gives effect to the decision making principles and takes into account the principles of the Treaty of Waitangi.	**Inconsistent** The Applicant has over a relatively extended period of time engaged with mana whenua in relation to this MP4 proposal, as well as in relation to the preliminary MP4 stages, and other miscellaneous applications required to ensure continuity of mining. However, as set out in the submission from Kā Runaka, the approach taken to progressively consent the MP4 project in stages, and the updates of the MP4 application material made throughout the consenting process (in response to s92 RFIs and additional changes made by the Applicant) has hindered the ability of Kā Rūnaka to holistically assess the cultural impacts of the proposal. Based on this, bond between tangata whenua and indigenous biodiversity, and the ability to exercise rakatirataka and carry out kaitiakitaka obligations in respect to te taiao have only been recognised to a limited extent. This in not conducive to formation of strong and effective partnerships with tangata whenua. Further, the mauri, intrinsic values, and wellbeing of indigenous biodiversity have not been adequately prioritised, as the MP4 activities would result in degradation of indigenous biodiversity in a manner that cannot be redressed.	
Policy 2: Tangata whenua exercise kaitiakitanga for indigenous biodiversity in their rohe, including through:	**Inconsistent** The CIA states that the ability to exercise rakatirataka and carry out kaitiakitaka obligations in respect to te taiao is an important contributor to upholding the mana of mana whenua.	

(a) managing indigenous biodiversity on their land; and *(b) identifying and protecting indigenous species, populations and ecosystems that are taonga; and* *(c) actively participating in other decision-making about indigenous biodiversity.*	Kāi Tahu have significant concerns about the limited extent to which this has been recognised in the Macraes Gold Project to date. The ongoing modifications to the whenua and the wai increase the difficulty of maintaining and restoring connections with these places. On this basis, the ability of tangata whenua to exercise kaitiakitaka for indigenous biodiversity is limited.	
Policy 3: A precautionary approach is adopted when considering adverse effects on indigenous biodiversity.	**Inconsistent** Clause 3.7 states: *Local authorities must adopt a precautionary approach toward proposed activities where:* *(a) the effects on indigenous biodiversity are uncertain, unknown, or little understood;* (b) *but those effects could cause significant or irreversible damage to indigenous biodiversity.* There is significant residual uncertainty about the potential effects on the threatened moth, rock tor habitat of at risk – declining gecko, and the naturally uncommon critically endangered ephemeral wetlands, and these effects could cause irreversible damage to indigenous biodiversity. These effects should be avoided.	
Policy 4: Indigenous biodiversity is managed to promote resilience to the effects of climate change.	**Partially consistent** The Applicant has considered the likely effects of a changing climate on indigenous biodiversity at the Macraes site. Essentially, the effects on indigenous biota are largely unknown, but may result in alteration of vegetation communities to a drier form which is perhaps unable to support the currently widespread narrow-leaved tussock. Fragmentation of habitat is likely to increase which will disproportionately affect rare species with restricted distribution. It is not clear how this has been taken into account in relation to management of indigenous biodiversity.	
Policy 5: Indigenous biodiversity is managed in an integrated way, within and across administrative boundaries.	**Consistent** The potential effects on indigenous biodiversity are assessed in an integrated way and the Applicant sought joint notification/bundling of the applications to the three councils. I do not consider that administrative boundaries affect the integrated management of indigenous biodiversity.	

Policy 8: The importance of maintaining indigenous biodiversity outside SNAs is recognised and provided for.	**Inconsistent** The Applicant has considered the significance criteria set out in Appendix 1 of this NPS-IB and determined that certain vegetation communities at all three main project areas meet the significance criteria and would qualify as SNAs, noting that this not formally make then SNAs. Despite this recognition, the MP4 proposal will not provide for the maintenance of indigenous biodiversity, as it will result in a net loss in wetland extent, lizard populations and habitat, and vulnerable moth population and habitat because these losses cannot be adequately offset. This loss would result from all three key mining areas, but the largest losses would result from the Golden Bar proposal, followed by Coronation, and then Innes Mills.	
Policy 10: Activities that contribute to New Zealand's social, economic, cultural, and environmental wellbeing are recognised and provided for as set out in this National Policy Statement.	**Inconsistent** Clause 3.5 states that local authorities must consider that the protection, maintenance, and restoration of indigenous biodiversity contributes to these wellbeings but this does not preclude subdivision, use and development in appropriate places and forms. I do not consider the MP4 development takes an appropriate form, in that it will result in a net loss of indigenous biodiversity which is wholly inconsistent with the objective of this NPS-IB.	
Policy 15: Areas outside SNAs that support specified highly mobile fauna are identified and managed to maintain their populations across their natural range, and information and awareness of highly mobile fauna is improved.	**Consistent** Two species have been identified that are highly mobile fauna as per Appendix 2 of this NPS-IB. These are the New Zealand Falcon and the pipit. The Applicant considers that none of the habitats on site would be considered a Highly Mobile Fauna Area that would be set under clause 3.20. Despite the loss of habitat that will result from MP4, Mr Davis considers that it is likely that the predator proof fencing at MEEA (required by recommended conditions) and other bird enhancement measures may lead to an uplift in populations.	

Regional Policy Statements

Otago Regional Policy Statement 2019 (**ORPS 2019**)		
Provision	**Assessment**	
Objective 1.1 Otago's resources are used sustainably to promote economic, social, and cultural wellbeing for its people and communities	**Inconsistent** The MP4 project will provide for the economic wellbeing of people and communities, as well as social wellbeing insofar as that is connected with economic wellbeing. However, I do not consider that the Applicant has demonstrated that this can be done in a manner	

	that safeguards the life-supporting capacity of water, soil, and ecosystems, nor that adverse effects can be adequately avoided, remedied, or mitigated. As such, I do not consider that the MP4 proposal is a sustainable use of resources.	
Policy 1.1.1 Economic wellbeing Provide for the economic wellbeing of Otago's people and communities by enabling the resilient and sustainable use and development of natural and physical resources.	**Inconsistent** The Macraes Mine has provided significant economic benefit to northeast Otago, metropolitan Dunedin, and the Otago region more broadly, as well as national economic benefit. The MP4 proposal will extend this contribution out until approximately 2030. However, the anticipated adverse effects mean I do not consider that this can be done sustainably.	
Policy 1.1.2 – Social and cultural wellbeing and health and safety Provide for the social and cultural wellbeing and health and safety of Otago's people and communities when undertaking the subdivision, use, development and protection of natural and physical resources by all of the following: a) Recognising and providing for Kāi Tahu values; b) Taking into account the values of other cultures; c) Taking into account the diverse needs of Otago's people and communities; d) Avoiding significant adverse effects of activities on human health; e) Promoting community resilience and the need to secure resources for the reasonable needs for human wellbeing; f) Promoting good quality and accessible infrastructure and public services.	**Partially Consistent** The economic benefits of the Macraes Mine including this MP4 proposal will have associated social benefits, promoting community resilience, maintaining population levels in northeast Otago, and thereby maintaining the quality of some central government services. Significant adverse effects on human health will be avoided. Based on the submission and CIA, at this stage Kāi tahu values have not been adequately recognised and provided for as the application was put forward and progressed without an assessment of cultural impacts endorsed by Rūnaka.	
Objective 1.2 Recognise and provide for the integrated management of natural and physical resources to support the wellbeing of people and communities in Otago.	**Partially consistent** The Applicant recognises the interconnectedness of land, water, and air resources, and that the use of one resource may affect another, and this is reflected in the practical management of the site, where many different activities are managed as one interconnected operation. This is somewhat undermined by the fragmented approach	
Policy 1.2.1 Integrated resource management		

Achieve integrated management of Otago's natural and physical resources, by all of the following: a) Coordinating the management of interconnected natural and physical resources; b) Taking into account the impacts of management of one natural or physical resource on the values of another, or on the environment; c) Recognising that the value and function of a natural or physical resource may extend beyond the immediate, or directly adjacent, area of interest; d) Ensuring that resource management approaches across administrative boundaries are consistent and complementary; e) Ensuring that effects of activities on the whole of a natural or physical resource are considered when that resource is managed as subunits. f) Managing adverse effects of activities to give effect to the objectives and policies of the Regional Policy Statement. g) Promoting healthy ecosystems and ecosystem services; h) Promoting methods that reduce or negate the risk of exceeding sustainable resource limits.	that has been applied to consenting the mining activities which has resulted in an extremely complex consented environment and ultimately difficulty managing the effects of the mine in a holistic manner. This MP4 application does promote integrated management to an extent, with technical assessments presenting one integrated proposal for simultaneous processing by three Councils. However, the MP4 does not particularly promote healthy ecosystems nor does it sufficiently promote methods to reduce the risk of exceeding sustainable resources, particularly in regard to water quality and cumulative biodiversity impacts.	
Objective 2.1 The principles of Te Tiriti o Waitangi are taken into account in resource management processes and decisions	**Inconsistent** Based on the submission from Kā Rūnaka and CIA, at this stage Kāi tahu values, including wāhi tūpuna, have not been adequately recognised and provided for as the application was put forward and progressed without an assessment of cultural impacts endorsed by Rūnaka. It is not clear if the adverse effects on cultural values can be adequately avoided, remedied, or mitigated by consent conditions.	
Objective 2.2 Kāi Tahu values, interests and customary resources are recognised and provided for.		
Policy 2.2.1		

Manage the natural environment to support Kāi Tahu wellbeing by all of the following: a) Recognising and providing for their customary uses and cultural values in Schedules 1A and B; and, b) Safeguarding the life-supporting capacity of natural resources.		
Policy 2.2.2 Recognising sites of cultural significance Recognise and provide for the protection of wāhi tūpuna, by all of the following: a) Avoiding significant adverse effects on those values that contribute to the identified wāhi tūpuna being significant; b) Avoiding, remedying, or mitigating other adverse effects on the identified wāhi tūpuna; c) Managing the identified wāhi tūpuna sites in a culturally appropriate manner.		
Policy 2.2.3 Wāhi tūpuna and associated sites Enable Kāi Tahu relationships with wāhi tūpuna by all of the following: a) Recognising that relationships between sites of cultural significance are an important element of wāhi tūpuna; b) Recognising and using traditional place names		
Objective 3.1 The values (including intrinsic values) of ecosystems and natural resources are recognised and maintained, or enhanced where degraded.	**Partially consistent** The values of ecosystems and natural resources has generally been recognised by the Applicant. In respect of air quality In respect of air quality and risks from natural hazards, values are recognised and maintained. Freshwater, wetland, and are not maintained.	
Policy 3.1.1 Fresh water	**Inconsistent**	

Safeguard the life-supporting capacity of fresh water and manage fresh water to: a) Maintain good quality water and enhance water quality where it is degraded, including for: i. Important recreation values, including contact recreation; and, ii. Existing drinking and stock water supplies; b) Maintain or enhance aquatic: i. Ecosystem health; ii. Indigenous habitats; and, iii. Indigenous species and their migratory patterns. c) Avoid aquifer compaction and seawater intrusion; d) Maintain or enhance, as far as practicable: i. Natural functioning of rivers, lakes, and wetlands, their riparian margins, and aquifers; ii. Coastal values supported by fresh water; iii. The habitat of trout and salmon unless detrimental to indigenous biological diversity; and iv. Amenity and landscape values of rivers, lakes, and wetlands; e) Control the adverse effects of pest species, prevent their introduction and reduce their spread; f) Avoid, remedy or mitigate the adverse effects of natural hazards, including flooding and erosion; and,	This stage of MP4 in combination with ongoing effects of other mining activities will result in measurable increases of contaminants in all affected catchments as compared to the current state. Water quality will not be maintained and could be significantly degraded if uncertainties in models are realised, and necessary mitigations are not implemented. This could result in significant adverse effects on ecosystem health. There is a risk of increased nitrate-nitrogen concentrations in Deepdell Creek increasing periphyton growth to the extent that macroinvertebrates and fish could be affected. If this occurs, recreational values and contact recreation could be affected, although Deepdell Creek is not likely to support significant values of this type due to very steep surrounding terrain. With respect to drinking water, the contaminant of concern is arsenic. As the existing and proposed compliance standard is set well above the drinking water standards, there is a risk that drinking water could be affected in most catchments. For all other contaminants, the drinking water standard will not be exceeded even if the existing compliance standards are reached. Freshwater is not expected to degrade to the point that it is unsuitable for consumption by stock. The natural functioning of rivers and wetlands, including their riparian margins, has been extensively modified by the Macraes mining operation, and will be further modified by this MP4 proposal through reductions in base flows to rivers, loss of wetlands, reclamation of riverbed, and indirect impacts on other wetlands and riparian vegetation due to proximity of mining. Amenity and landscape values of rivers and wetlands may be adversely affected through continued mining, although the contribution of this stage of MP4 activities to these impacts are likely to be small in overall landscape context. Mining activities can potentially exacerbate natural hazard risks. Water will be managed on site to avoid or minimise the effects of natural hazards. For example, groundwater is abstracted in and around open pits to ensure appropriate slope stability.	

g) Avoid, remedy or mitigate adverse effects on existing infrastructure that is reliant on fresh water.	The Applicant proposes to manage weeds and pests in accordance with various management plans. Specific details about the management of aquatic pests are not provided in the application.	
Policy 3.1.2 Beds of rivers, lakes, wetlands, and their margins Manage the beds of rivers, lakes, wetlands, their margins, and riparian vegetation to: a) Safeguard the life supporting capacity of fresh water; b) Maintain good quality water, or enhance it where it has been degraded; c) Maintain or enhance bank stability; d) Maintain or enhance ecosystem health and indigenous biological diversity; e) Maintain or enhance, as far as practicable: i. Their natural functioning and character; and ii. Amenity values; f) Control the adverse effects of pest species, prevent their introduction and reduce their spread; and, g) Avoid, remedy or mitigate the adverse effects of natural hazards, including flooding and erosion.		
Policy 3.1.3 Water allocation and use Manage the allocation and use of fresh water by undertaking all of the following: a) Recognising and providing for the social and economic benefits of sustainable water use; b) Avoiding over-allocation, and phasing out existing over-allocation, resulting from takes and discharges;	**Consistent** Water is a critical resource on the mine site, being used in all facets of the operation, and is therefore essential for providing economic benefit. Surface water allocation in the Taieri catchment (in which the Coronation and Coronation North mines are located) is currently over-allocated, and there is no primary allocation available. However, the proposed 'surface water' takes are not from natural surface waterbodies; rather, they are takes of water that has accumulated in pit through a combination of rainfall, surface runoff, and groundwater seepages. This surface water is	

c) Ensuring the efficient allocation and use of water by: i. Requiring that the water allocated does not exceed what is necessary for its efficient use; ii. Encouraging the development or upgrade of infrastructure that increases efficiency; iii. Providing for temporary dewatering activities necessary for construction or maintenance.	therefore not primary allocation, and the taking of this water will not cause lead to further over-allocation in the Taieri catchment. Water is taken in the same manner across the central mining area and at Golden Bar. Allocation limits do not apply for these takes of water, nonetheless, there are no allocation issues in the Shag or Waikouaiti catchments. There are no mapped aquifers beneath the site and hence no allocation limits are prescribed in the RPW. The abstraction of groundwater from bores in and around pits is no more than what is required to facilitate mining and maintain stability in pits. The abstracted groundwater and surface water is used efficiently, being recycled and reused through the MWMS.	
Policy 3.1.6 Air quality Manage air quality to achieve the following: a) Maintain good ambient air quality that supports human health, or enhance air quality where it has been degraded; b) Maintain or enhance amenity values.	**Consistent** Given separation distances between the MP4 activities and neighbouring dwellings and other sensitive receptors, fine particulate matter and RCS are not likely to cause adverse health effects. Hence, air quality will continue to support human health. Provided good dust mitigation is diligently applied, particularly in relation to the haul roads and proposed tailings storage facility, dust nuisance effects at sensitive receptors should and ensure that amenity values are maintained.	
Policy 3.1.8 Soil Erosion Minimise soil erosion resulting from activities, by undertaking all of the following: a) Using appropriate erosion controls and soil conservation methods; b) Maintaining vegetative cover on erosion prone land; c) Remediating land where significant soil erosion has occurred; d) Encouraging activities that enhance soil retention.	**Consistent** Erosion and sediment control measures will continue to be implemented on site, including during the proposed MP4 works. The matters listed in this policy will be covered in erosion and sediment control plans.	

Policy 3.1.9 Ecosystems and indigenous biodiversity Manage ecosystems and indigenous biological diversity in terrestrial, freshwater and marine environments to: a) Maintain or enhance: i. Ecosystem health and indigenous biological diversity including habitats of indigenous fauna; ii. Biological diversity where the presence of exotic flora and fauna supports indigenous biological diversity; b) Maintain or enhance as far as practicable: i. Areas of predominantly indigenous vegetation; ii. Habitats of trout and salmon unless detrimental to indigenous biological diversity; iii. Areas buffering or linking ecosystems; c) Recognise and provide for: i. Hydrological services, including the services provided by tall tussock grassland; ii. Natural resources and processes that support indigenous biological diversity; d) Control the adverse effects of pest species, prevent their introduction and reduce their spread.	**Inconsistent** In the terrestrial environment, ecosystem health and indigenous biodiversity will not be maintained or enhanced because the MP4 proposal would result in a net loss in wetland extent, lizard populations and habitat, and vulnerable moth population and habitat. These losses cannot be adequately offset. These are considered to be significant adverse effects. If my assessment were solely limited to indigenous biodiversity effects in relation to natural inland wetlands, my conclusions would be unchanged. In the aquatic environment, this stage of MP4 in combination with ongoing effects of other mining activities will result in measurable increases of contaminants in all affected catchments. Managing water within existing compliance limits could result in significant adverse effects on aquatic ecosystems, including trout and indigenous species. Conditions are recommended to reduce this risk to the extent possible, noting Council's ability to recommend suitable conditions is constrained. Reclamation of lengths of stream bed, removal of areas of wetland, and loss of riparian/wetland vegetation mosaic which link the aquatic and terrestrial environment are directly proposed by this application and will permanently alter the natural characteristics and behaviours of other fresh waterbodies in those catchments (albeit to a small extent) further contributing to the already extensive modification of surface waterbodies within the Macraes mining area. Even after recommended consent conditions are considered, I do not consider that maintenance or enhancement of any part of the freshwater environment would be achieved.	
Objective 3.2 Otago's significant and highly-valued natural resources are identified and protected, or enhanced where degraded	**Inconsistent** These resources are generally well identified by the Applicant but not adequately protected or enhanced.	
Policy 3.2.1 Identifying significant indigenous vegetation and habitats	**Consistent**	

Identify areas and values of significant indigenous vegetation and significant habitats of indigenous fauna, using the attributes detailed in Schedule 4.	The Applicant has considered the significance criteria set out in Schedule 4 of this ORPS 2019 and determined that certain vegetation communities at all three main project areas meet the significance criteria of this ORPS. These are: • Ephemeral wetlands, riparian vegetation, tussockland at Coronation. • Tussockland, riparian vegetation at Frasers-Innes Mills • Tussockland, riparian vegetation, shrublands at Golden Bar • Ephemeral wetland near Golden Bar Road Realignment	
Policy 3.2.2 Managing significant indigenous vegetation and habitats Protect and enhance areas of significant indigenous vegetation and significant habitats of indigenous fauna, by all of the following: a) In the coastal environment, avoiding adverse effects on: i. The values that contribute to the area or habitat being significant; ii. Indigenous taxa that are listed as threatened or at risk in the New Zealand Threat Classification System lists; iii. Taxa that are listed by the International Union for Conservation of Nature and Natural Resources as threatened; iv. Indigenous ecosystems and vegetation types that are threatened in the coastal environment, or are naturally rare; v. Habitats of indigenous species where the species are at the limit of their natural range, or are naturally rare; vi. Areas containing nationally significant examples of indigenous community types; and	**Inconsistent** Where these areas of vegetation will be disturbed and are unable to be adequately remediated or mitigated, the values that made them significant, such as rarity, representativeness, habitat of rare species, distinctiveness, diversity will not be maintained. Neither offsetting nor compensation constitute protection of enhancement of the affected significant areas, although they will contribute to positive indigenous biodiversity effects elsewhere.	

vii. Areas set aside for full or partial protection of indigenous biological diversity under other legislation; c) Beyond the coastal environment, and in the coastal environment in significant areas not captured by a) above, maintaining those values that contribute to the area or habitat being significant; d) Avoiding significant adverse effects on other values of the area or habitat; e) Remedying when other adverse effects cannot be avoided; f) Mitigating when other adverse effects cannot be avoided or remedied; g) Encouraging enhancement of those areas and values that contribute to the area or habitat being significant; h) Controlling the adverse effects of pest species, preventing their introduction and reducing their spread.		
Policy 3.2.5 Identifying highly valued natural features, landscapes and seascapes Identify natural features, landscapes and seascapes, which are highly valued for their contribution to the amenity or quality of the environment but which are not outstanding, using the attributes in Schedule 3.	**Inconsistent** The application does not identify any highly valued natural features or landscapes. The landscape assessment provided with the application focuses on physical landscape changes and the visual effects that manifest from these. As stated in the CIA, it does not appear to consider any associative or perceptual values of importance to Kāi Tahu in relation to this wāhi tīpuna landscape.	
Policy 3.2.6 Managing highly valued natural features, landscapes and seascapes Maintain or enhance highly valued natural features, landscapes and seascapes by all of the following:	**Inconsistent** As the values have not been identified they are not managed in accordance with this policy. Kā Rūnaka may be able to provide details on how effects on values may be avoided, remedied, or mitigated.	

a) Avoiding significant adverse effects on those values that contribute to the high value of the natural feature, landscape or seascape; b) Avoiding, remedying or mitigating other adverse effects; c) Encouraging enhancement of those values that contribute to the high value of the natural feature, landscape or seascape.		
Policy 3.2.15 Identifying the significant values of wetlands Identify the significant values of wetlands, having regard to all of the following: a) Degree of naturalness; b) Amenity or landscape values; c) Kāi Tahu cultural values; d) Recreational values; e) Ecological function and values; f) Hydrological function and values; g) Geomorphological features and values.	**Consistent** Ephemeral wetlands are a naturally uncommon and critically endangered ecosystem and provide unique habitats for rare species. While the Applicant has not assessed the significant values of wetlands against this policy specifically, the application does identify that the ephemeral wetlands at the Coronation mining area are areas of significant indigenous vegetation and significant habitat of indigenous fauna. It is therefore likely that these wetlands would be significant in terms of their ecological function and values. All wetlands are highly valued by Kāi Tahu.	
Policy 3.2.16 Managing the values of wetlands Protect the function and values of wetlands by all of the following: a) Maintaining the significant values of wetlands; b) Avoiding, remedying or mitigating other adverse effects; c) Controlling the adverse effects of pest species, preventing their introduction and reducing their spread; d) Encouraging enhancement that contributes to the values of the wetland; e) Encouraging the rehabilitation of degraded wetlands.	**Inconsistent** The proposal will result in the permanent loss of wetlands, including natural inland wetlands, naturally uncommon and critically endangered ephemeral wetlands, and riparian/wetland vegetation mosaic resulting in the loss of the significant values that they support. Hence, the significant values of the ephemeral wetlands will not be maintained. Further, it is not possible to avoid, remedy, or mitigate adverse effects when the wetlands will be permanently lost. Some effects on wetlands that are located in a buffer zone can be avoided or mitigated. For example, sediment control measures will be implemented to avoid or reduce sediment flows into the wetland.	

	Compensation measures proposed by the Applicant in respect of loss of riparian/wetland vegetation mosaic will focus on pest/weed management, enhancement of values, and contribute to rehabilitation of degraded habitat of this type. These are generally considered appropriate but On balance, I consider the proposal to be inconsistent with this policy because there will be a net loss of wetland extent, including loss of naturally uncommon and critically endangered ephemeral wetlands.	
Objective 4.1 Risks that natural hazards pose to Otago's communities are minimised.	**Consistent** Mining activities can exacerbate natural hazard risks. The risk of most relevance seismic risk. Geotechnical assessments provided with the application and reviewed by Mr Macdiarmid on behalf of the three Councils, find that the pit walls, waste rock stacks, and FTSF will be appropriately stable under both static and seismic conditions, provided the recommended consent conditions are implemented. The mitigation measures, such as the establishment of an exclusion zone and ensuring an appropriate FoS for public roads within that zone, that have been proposed to manage the risk of instability in beyond the pit crests are considered geotechnically reasonable, although difficulties in ensuring these measures are maintained *in perpetuity* have been raised. In my opinion, ensuring that these mitigation measures are recorded in consent conditions (on the DCC/WDC land use consent, which does not expire) provides a reasonable level of surety. A covenant in favour of the Consent Authority could be used to ensure these maintenance requirements are met. This is a matter to be considered by the DCC and WDC land use consent.	
Policy 4.1.1 Identifying natural hazards Identify natural hazards that may adversely affect Otago's communities, including hazards of low likelihood and high consequence by considering all of the following: a) Hazard type and characteristics; b) Multiple and cascading hazards; c) Cumulative effects, including from multiple hazards with different risks; d) Effects of climate change; e) Using the best available information for calculating likelihood; f) Exacerbating factors.		
Policy 4.1.4 Assessing activities for natural hazard risk Assess activities for natural hazard risk to people, property and communities, by considering all of the following: a) The natural hazard risk identified, including residual risk;		

b) Any measures to avoid, remedy or mitigate those risks, including relocation and recovery methods; c) The long-term viability and affordability of those measures; d) Flow-on effects of the risk to other activities, individuals and communities; e) The availability of, and ability to provide, lifeline utilities, and essential and emergency services, during and after a natural hazard event.		
Policy 4.1.5 Natural hazard risk Manage natural hazard risk to people, property and communities, with particular regard to all of the following: a) The risk posed, considering the likelihood and consequences of natural hazard events; b) The implications of residual risk; c) The community's tolerance of that risk, now and in the future, including the community's ability and willingness to prepare for and adapt to that risk, and respond to an event; d) Sensitivity of activities to risk; e) The need to encourage system resilience; f) The social costs of recovery.		
Objective 4.6 Hazardous substances, contaminated land and waste materials do not harm human health or the quality of the environment in Otago	**Consistent** Mine process tailings are considered hazardous waste. Storage of tailings within the FTSF will result in creation of contaminated land, noting that this is already provided for by the Stage 1 FTSF (previously consented). Discharge of additional tailings into the Stage 2 pit (this application) will not result in any new contaminated land. This Central Mining Area of the site is already identified as a HAIL site (HAIL.01146.01). The contaminated land will result in groundwater contamination via seepage from the FTSF. This is not considered to present an unacceptable risk in the wider context of the site.	
Policy 4.6.4 Identifying contaminated land Identify sites of known or potentially contaminated land in Otago.		
Policy 4.6.5 Managing contaminated land		

Ensure contaminated or potentially contaminated land does not pose an unacceptable risk to people and the environment, by: a) Assessing and, if required, monitoring contaminant levels and environmental risks; b) Protecting human health in accordance with regulatory requirements; c) Minimising adverse effects of the contaminants on the environment.		
Objective 5.3 Sufficient land is managed and protected for economic production	**Consistent** The mine is established in a rural area and has a functional need to locate there.	
Policy 5.3.1 Rural activities Manage activities in rural areas, to support the region's economy and communities, by: a) Enabling primary production and other rural activities that support that production; b) Providing for mineral exploration, extraction and processing; c) Minimising the loss of significant soils; d) Restricting the establishment of incompatible activities in rural areas that are likely to lead to reverse sensitivity effects; e) Minimising the subdivision of productive rural land into smaller lots that may result in a loss of its productive capacity or productive efficiency; f) Providing for other activities that have a functional need to locate in rural areas.	**Consistent** The proposal provides for mineral extraction and processing in a rural area.	
Policy 5.3.4 Mineral and petroleum exploration, extraction and processing Recognise the functional needs of mineral exploration, extraction and processing activities to locate where the resource exists.	**Consistent** The proposed open pit extensions and ancillary activities such as construction of waste rock stacks have a functional need to locate as proposed.	

Objective 5.4 Adverse effects of using and enjoying Otago's natural and physical resources are minimised	**Inconsistent** While some adverse effects, such as geotechnical and air quality effects, can be minimised, there remain substantial adverse effects on water quality and aquatic and terrestrial ecology that are not adequately minimised.	
Policy 5.4.1 Offensive or objectionable discharges Manage offensive or objectionable discharges to land, water and air by: a) Avoiding significant adverse effects of those discharges; b) Avoiding significant adverse effects of discharges of human or animal waste directly, or in close proximity, to water or mahika kai sites; c) Avoiding, remedying or mitigating other adverse effects of those discharges.	**Consistent** The proposal involves discharges of contaminants to land, water, and air. Discharges of contaminants such as mine impacted water and tailings to land are not expected to be offensive or objectionable because they will be contained within open pits or silt ponds. Discharges of contaminants to water from silt ponds and pit lakes will be managed so that they are not offensive or objectionable. However, discharging contaminants to water is not supported by mana whenua. Human and animal wastes are not contaminants of relevance to this project. Implementation of the dust management plan, monitoring schedule, and specific mitigations measures for dust means that the air discharges are not expected to be offensive or objectionable.	
Policy 5.4.2 Adaptive management approach Apply an adaptive management approach, to avoid, remedy or mitigate actual and potential adverse effects that might arise and that can be remedied before they become irreversible, by both: a) Setting appropriate indicators for effective monitoring of those adverse effects; and b) Setting thresholds to trigger remedial action before the effects result in irreversible damage.	**Consistent** An adaptive management approach is considered reasonable to manage the potential adverse effects on water quality and aquatic ecology, as well as air quality. Such an approach is recommended in consent conditions.	
Policy 5.4.3 Precautionary approach to adverse effects Apply a precautionary approach to activities where adverse effects may be uncertain, not able to be	**Inconsistent** A precautionary approach is not applied by the Applicant. Water quality and effects on aquatic life are uncertain, because the Applicant's proposed management strategy does not include the mitigations assumed in the models and the proposed limits don't appropriately constrain effects. Hence, adverse effects on aquatic	

determined, or poorly understood but are potentially significant or irreversible.	life could be significant. I have taken a precautionary approach in recommending conditions. Further, the proposal would result in effects on indigenous biodiversity that are potentially significant or irreversible. These activities should be avoided in accordance with the effects management hierarchy. I have taken a precautionary approach in recommending consent be declined.	
Policy 5.4.6 Offsetting for indigenous biological diversity Consider indigenous biological diversity offsetting, when: a) Residual adverse effects of activities cannot be avoided, remedied or mitigated; b) The offset achieves no net loss and preferably a net gain in indigenous biological diversity; c) The offset ensures there is no loss of individuals of Threatened taxa other than kānuka (Kunzea robusta and Kunzea serotina), and no reasonably measurable loss within the ecological district to an At Risk-Declining taxon, other than mānuka (Leptospermum scoparium), under the New Zealand Threat Classification System ("NZTCS"); d) The offset is undertaken where it will result in the best ecological outcome, preferably; i. Close to the location of development; or ii. Within the same ecological district or coastal marine biogeographic region; e) The offset is applied so that the ecological values being achieved are the same or similar to those being lost;	**Partially consistent** The Applicant's proposal for offsetting is generally in accordance with this policy, except for: • the offset for the ephemeral wetlands at Coronation and the wetlands at Innes Mills will not achieve no not net loss and preferably net gain. This policy does not provide for offsetting in this situation.	

f) The positive ecological outcomes of the offset last at least as long as the impact of the activity, preferably in perpetuity; g) The offset will achieve biological diversity outcomes beyond results that would have occurred if the offset was not proposed; h) h) The delay between the loss of biological diversity through the proposal and the gain or maturation of the offset's biological diversity outcomes is minimised.		
Policy 5.4.6A Biological Diversity Compensation Consider the use of biological diversity compensation: a) When: i. Adverse effects of activities cannot be avoided, remedied, mitigated or offset; and ii. The residual adverse effects will not result in 1. The loss of an indigenous taxon (excluding freshwater fauna and flora) or of any ecosystem type from an ecological district or coastal marine biogeographic region; 2. Removal or loss of viability of habitat of a threatened or at risk indigenous species of fauna or flora under the New Zealand Threat Classification System ("NZTCS"); 3. Removal or loss of viability of an originally rare or uncommon ecosystem type that is associated with indigenous vegetation or habitat of indigenous fauna; 4. Worsening of the NZTCS conservation status of any threatened or at risk indigenous freshwater fauna.	**Inconsistent** The Applicant's proposal for compensation is generally in accordance with this policy, except for: • the compensation for effects on population and habitat of *Orocrambus sophistes* could result in the loss of an indigenous taxon from the ecological district • the compensation for effects on population and habitat of *Orocrambus sophistes* could result loss of viability of habitat for this threatened species • the compensation for the loss of 12 rock tors (lizard habitat) could result in loss of habitat for an at risk - declining species (korero gecko) This policy does not provide for compensation that results in these effects.	

b) By applying the following criteria: i. The compensation is proportionate to the adverse effect; ii. The compensation is undertaken where it will result in the best practicable ecological outcome, preferably; 1. Close to the location of development; 2. Within the same ecological district or coastal marine biogeographic region; iii. The compensation will achieve positive biological diversity outcomes that would not have occurred without that compensation; iv. The positive ecological outcomes of the compensation last for at least as long as the adverse effects of the activity; and v. v. The delay between the loss of biological diversity through the proposal and the gain or maturation of the compensation's biological diversity outcomes is minimised.		
Policy 5.4.8 Adverse effects from mineral and petroleum exploration, extraction and processing Manage adverse effects from the exploration, extraction and processing of minerals and petroleum, by: a) Giving preference to avoiding their location in all of the following: i. Areas of significant indigenous vegetation and significant habitats of indigenous fauna in the coastal environment; ii. Outstanding natural character in the coastal environment;	**Inconsistent** It is not possible to avoid the areas of significant vegetation and habitats of indigenous fauna due to the functional need for the activities to locate as proposed, nor is it possible to avoid the adverse effects on the values contributing to the significance. The measures proposed to remedy or mitigate the adverse are not sufficient to adequately manage effects on indigenous vegetation and habitat features meeting significance criteria. Biodiversity offsetting and compensation are proposed but are considered deficient in light of the issues set out in the assessment against policies 5.4.6 and 5.4.6A above, both in regard to natural inland wetlands and other indigenous biodiversity in the terrestrial environment. Health and safety effects will be avoided. It is not known if cultural effects in respect of wāhi tīpuna can be avoided, remedied, or mitigated. Staging and progressive	

iii. Outstanding natural features and natural landscapes, including seascapes, in the coastal environment; iv. Areas of significant indigenous vegetation and significant habitats of indigenous fauna beyond the coastal environment; v. Outstanding natural character in areas beyond the coastal environment; vi. Outstanding natural features and landscapes beyond the coastal environment; vii. Outstanding water bodies or wetlands; viii. Places or areas containing historic heritage of regional or national significance; ix. Areas subject to significant natural hazard risk; b) Where it is not practicable to avoid locating in the areas listed in a) above because of the functional needs of that activity: i. Avoid adverse effects on the values that contribute to the significant or outstanding nature of a) i-iii; ii. Avoid, remedy or mitigate, as necessary, adverse effects on values in order to maintain the outstanding or significant nature of a)iv-viii; iii. Consider first biological diversity offsetting, and then biological diversity compensation, if adverse effects described in b)ii. on indigenous biological diversity cannot be practicably remedied or mitigated;	rehabilitation are already proposed and do not further reduce effects. The approach taken by the Applicant is not considered precautionary as it will result in significant and potentially irreversible adverse effects.	

iv. Minimise any increase in natural hazard risk through mitigation measures; v. Consider environmental compensation if adverse effects described in b) ii, other than on indigenous biological diversity, cannot practically be avoided, remedied or mitigated; ba) Avoid significant adverse effects on natural character in all other areas of the coastal environment; c) Avoiding adverse effects on the health and safety of the community; d) Avoiding, remedying, or mitigating adverse effects on other values including highly valued natural features, landscapes and seascapes in order to maintain their high values; e) Considering biological diversity offsetting or compensating for residual adverse effects on other values; f) Reducing unavoidable adverse effects by: i. Staging development for longer term activities; and ii. Progressively rehabilitating the site, where possible; g) Applying a precautionary approach (including adaptive management where appropriate) to assessing the effects of the activity, where there is scientific uncertainty, and potentially significant or irreversible adverse effects.		

Where there is a conflict, Policy 5.4.8 prevails over policies under Objective 3.2, (except for policy 3.2.12) Policy 4.3.1 and Policy 5.2.3.		
Proposed Otago Regional Policy Statement (P-ORPS 2021) and Proposed Otago Regional Policy Statement – Freshwater Instrument Components 2021		
Provision	**Assessment**	
MW-O1 Principles of Te Tiriti o Waitangi The principles of Te Tiriti o Waitangi are given effect in resource management processes and decisions, utilising a partnership approach between councils and papatipu rūnaka to ensure that what is valued by mana whenua is actively protected in the region.	**Inconsistent** Based on the submission from Kā Rūnaka and the findings of the CIA, it is evident that the cumulative effects of the Macraes Gold Project on mana, mauri, tapu and whakapapa are significant, and the proposed expansion of the Macraes Gold Project will have further impacts on these values. It is not clear at this stage if consent conditions will be sufficient to safeguard the mauri and life-supporting capacity of natural resources in respect of cultural values.	
MW-P3 Supporting Kāi Tahu hauora The natural environment is managed to support Kāi Tahu hauora by: (1) recognising that Kāi Tahu hold an ancestral and enduring relationship with all whenua, wai māori and coastal waters within their takiwā, (2) protecting customary uses, Kāi Tahu values and relationships as identified by Kāi Tahu to resources and areas of significance, and restoring these uses and values where they have been degraded by human activities, (3) safeguarding the mauri and life-supporting capacity of natural resources, recognising the whakapapa connections of Kāi Tahu with these resources as taoka, and the connections to practices such as mahika kai, and (4) working with Kāi Tahu to incorporate mātauraka into resource management processes and decision-making.		

IM–P3 – Providing for mana whenua cultural values in achieving integrated management Recognise and provide for the relationship of Kāi Tahu with natural resources by: (1) enabling mana whenua to exercise rakatirataka and kaitiakitaka, (2) facilitating active participation of mana whenua in resource management processes and decision making, (3) incorporating mātauraka Māori in processes and decision-making, and (4) ensuring resource management provides for the connections of Kāi Tahu to wāhi tūpuna, wai māori (including awa [rivers] and roto [lakes] and wai tai (including te takutai moana [coastal marine area]) and mahika kai and habitats of taoka species.	**Inconsistent** The CIA states that the ability to exercise rakatirataka and carry out kaitiakitaka obligations in respect to te taiao is an important contributor to upholding the mana of mana whenua. Kāi Tahu have significant concerns about the limited extent to which this has been recognised in the Macraes Gold Project to date. The ongoing modifications to the whenua and the wai increase the difficulty of maintaining and restoring connections with these places. As of yet, it is not clear whether consent conditions can be agreed to better provide for the relationship of Kāi Tahu with natural resources.	
IM–P5 – Managing environmental interconnections Manage the use and development of interconnected natural and physical resources by recognising: (1) situations where the value and function of a natural or physical resource extends beyond the immediate, or directly adjacent, area of interest, (2) situations where effects of an activity extend to a different part of the environment, and (3) the impacts of management of one natural or physical resource on the values of another, or on the environment.	**Consistent** The Applicant recognises the interconnectedness of land, water, and air resources, and that the use of one resource may affect another, and this is reflected in the practical management of the site, where many different activities are managed as one interconnected operation. This is also recognised in this MP4 application, particularly the water quantity and quality assessments, where activities in one location, such as the Central Mining Area, can have substantial impacts on and interactions with activities at another location, such as the Golden Bar area, through interconnected natural resources.	
IM–P6 – Managing uncertainties In resource management decision-making, manage uncertainties by using the best information available	**Inconsistent** There remains a large degree of uncertainty about the effects of the proposal, particularly in regard to freshwater effects. While modelling is the best available information, and residual modelling uncertainties can be generally considered to lead to underestimation	

at the time, including scientific data and mātauraka Māori, and: (1) taking all practicable steps to reduce uncertainty, and a) in the absence of complete and scientifically robust data, using information obtained from modelling, reliable partial data, and local knowledge, with preference for sources of information that provide the greatest level of certainty, and b) avoiding unreasonable delays in making decisions because of uncertainty about the quality or quantity of the information available, and (2) adopting a precautionary approach, including through use of adaptive management, towards activities whose effects are uncertain, unknown, or a little understood, but potentially significantly adverse.	of effects. This could be manageable. However, the Applicant's proposal to manage water quality to achieve compliance with existing compliance limits results in unnecessary confusion. To the extent possible, I have recommended conditions to constrain the potential effects to align with the predictions of model; however, I do not consider that this constitutes "taking all practicable steps to reduce uncertainty" because there are several ways in which the Applicant could significantly reduce this uncertainty. These are set out in Section 6.1.2.5 of the s42A report. Uncertainties in the rates of contaminant migration in groundwater can be adequately managed via consent conditions. In the terrestrial ecology space, there is significant residual uncertainty about the potential effects on the threatened moth, rock tor habitat of an at risk – declining gecko species, and the naturally uncommon critically endangered ephemeral wetlands, and these effects could cause irreversible damage to indigenous biodiversity. A precautionary approach would see these effects avoided and this has been recommended. Additional information is unlikely to be available to provide certainty in the decision-making process without introducing unreasonable delay.	
IM–P8 – Effects of climate change Recognise and provide for the effects of climate change by: (1) identifying the effects of climate change in Otago, including from the perspectives of Kāi Tahu as mana whenua, (2) assessing how the effects are likely to change over time, and (3) taking into account those changes in resource management processes and decisions.	**Partially Consistent** The Applicant has given some consideration to potential climate change, describing the potential effect of a changing climate upon indigenous biodiversity at the site, and also included a climate change scenario in surface water models. Beyond that, it is not clear how or if the Applicant has factored in any climate change scenarios to their proposed operation and management of mining activities, or if any particular mitigation measures are contemplated. Two submitters have voiced concerns about climate change, but it is not evident what the specific concerns may be.	
IM-P10 – Climate change adaptation and climate change mitigation		

Identify and implement climate change adaptation and climate change mitigation methods for Otago that: (1) minimise the effects of climate change to existing activities and the wider environment, (3) provide Otago's communities, including Kāi Tahu, with the best chance to thrive, and (4) enhance environment, social, economic, and cultural resilience to the adverse effects of climate change, including by facilitation activities that reduce those effects, and (5) protects Otago's existing renewable electricity facilities and provides for the development of new renewable electricity generation and infrastructure.		
IM–P13 – Managing cumulative effects In resource management decision-making, recognise and manage the impact of cumulative effects on the form, functioning and resilience of Otago's environment (including resilience to climate change) and the opportunities available for future generations.	**Inconsistent** Cumulative effects are of foremost concern, as these are the real-life effects that manifest in the environment. Cumulative effects of most relevance at this site are those upon water and aquatic and terrestrial ecology. I do not consider that these have been given adequate recognition by the Applicant.	
AIR-O1 Ambient air quality Ambient air quality provides for the health and well-being of the people of Otago, amenity values and mana whenua values, and the life-supporting capacity of ecosystems.	**Consistent** The primary contaminant discharged is TSP. The localised effects (on sensitive receptors) of these discharges are not expected to compromise (to any significant extent) human health, amenity values, mana whenua values, or the life-supporting capacity of ecosystems, provided dust mitigation measures are diligently implemented. Ambient air quality will continue to provide for the matters listed in these objectives.	
AIR-O2 Discharges to air The localised adverse effects of discharges to air do not compromise human health, amenity values, and mana whenua values and the life-supporting capacity of ecosystems.		
AIR-P1 Maintain ambient air quality	**Consistent**	

Ambient air quality is, at a minimum, maintained across Otago by: (1) ensuring discharges to air comply with ambient air quality limits, including ambient air quality standards and guidelines, where those have been set as limits, and (2) where limits, including ambient air quality standards and guidelines, have not been set, only allowing discharges to air if the adverse effects on ambient air quality are avoided, remedied or mitigated.	The discharges should not cause relevant (NES-AQ) air quality thresholds for PM_{10} to be exceeded near any sensitive receptors. There is currently no NES-AQ limit for ambient concentrations of $PM_{2.5}$ or RCS, but previous monitoring found that both concentrations of both $PM_{2.5}$ and RCS were well below the relevant (non-NZ) guidelines for the protection of human health.	
AIR-P4 Managing certain discharges Manage the adverse effects of discharges to air by: (1) avoiding noxious or dangerous effects, (2) ensuring discharges to air do not cause offensive or objectionable effects, (3) avoiding, remedying or mitigating other adverse effects from discharges to air, including but not limited to discharges arising from: a) outdoor burning of organic material, b) agrichemical and fertiliser applications, c) primary production activities, d) activities that produce dust, and e) industrial and trade activities. (4) locating new sensitive activities to avoid potential reverse sensitivity effects from existing consented or permitted discharges to air, unless these can be appropriately managed.	**Consistent** The discharges are not expected to result in any noxious or dangerous effects, nor any offensive or objectionable effects. Dust monitoring and implementation of dust suppression measures will mitigate (minimise) the adverse effects of dust. Reverse sensitivity issues are not anticipated.	
AIR-P6 Impacts on mana whenua values Ensure that discharges to air do not adversely affect mana whenua values by having particular regard to	**Consistent** A CIA was prepared by Aukaha on behalf of Kāti Huirapa Rūnaka ki Puketeraki who are recognised as mana whenua in the project area, and on behalf of Te Rūnanga o Moeraki and Te Rūnanga o Ōtākou who have interests in the proposal. An opposing submission was	

values and areas of significance to mana whenua, including wāhi tūpuna, wāhi tapu and wāhi taoka.	made by the three Rūnaka. Neither the CIA nor the submission from Kā Rūnaka discussed the impacts of discharges to air upon mana whenua values. From this I assume that the discharges of contaminants to air from the MP4 proposal will not adversely affect mana whenua values to any significant extent.	
LF–WAI–O1 – Te Mana o te Wai Otago's water bodies and their health and well-being are protected, and restored where they are degraded, so that the mauri of those water bodies is protected, and the management of land and water recognises and reflects that: (1) water is the foundation and source of all life – na te wai ko te hauora o ngā mea katoa, (2) there is an integral kinship relationship between water and Kāi Tahu whānui, and this relationship endures through time, connecting past, present and future, (3) each water body has a unique whakapapa and characteristics, (4) fresh water, land and coastal water have a connectedness that supports and perpetuates life, and (5) Kāi Tahu exercise rakatirataka, manaakitaka and their kaitiakitaka duty of care and attention over wai and all the life it supports, and (6) all people and communities have a responsibility to exercise stewardship, care, and respect in the management of fresh water.	**Inconsistent** *Of the freshwater planning instruments, this objective is the only provision for which an appeal is not resolved.* The primary manner by which the Applicant proposes to mitigate impacts on freshwater is through use of the MWMS, essentially recycling mine-impacted water on the site, and only discharging this to the freshwater receiving environment at times of high flow or when the discharge quality is otherwise considered suitable. However, the use of the freshwater receiving environment for the disposal and dilution of contaminants impacts upon the mauri of the wai. Taking a narrow view of freshwater 'health' and considering only the measurable water quality, this stage of MP4 in combination with ongoing effects of other mining activities will result in measurable increases of contaminants in all affected catchments. Modelling, when taken at face value, indicates that these increases are unlikely to result in degradation of water quality to the extent that ecological health is affected. However, uncertainties inherent in the modelling, combined with uncertainties about the effectiveness of or ability to implement the assumed mitigation measures, reduce confidence in this assessment. In reality, previous mining at the Macraes site has resulted in permanent changes to the freshwater (groundwater and surface water) landscape. The activities subject to this MP4 application, in combination with the existing and future effects of separately authorised mining activities, will directly contribute to the long-term contamination of groundwater, reduced baseflows to streams during mining and pit lake filling, and ongoing contamination of surface waters via diffuse discharges of contaminated groundwater and via direct discharges from pit lakes and silt ponds. These activities degrade mauri. Further, reclamation of lengths of stream bed and areas of wetland are directly proposed by this	

	application and will permanently alter the natural characteristics and behaviours of other fresh waterbodies in those catchments, further contributing to the already extensive modification of surface waterbodies within the Macraes mining area. Watercourses must reflect their natural characteristics and behaviours to give effect to Te Mana o te Wai and to sustain the relationship that Kāi Tahu have with the watercourse. The proposal is not consistent with Te Mana o te Wai.	
LF–WAI–P1 – Prioritisation In all decision-making affecting fresh water in Otago, prioritise: (1) first, the health and well-being of water bodies and freshwater ecosystems (te hauora o te wai) and the exercise of mana whenua to uphold this, (2) second, the health needs of people, (te hauora o te tangata) interacting with water through: (a) ingestion (such as drinking of water and consuming resources harvested from the water body), (b) immersive activities (such as harvesting resources and primary contact), and (c) personal hygiene activities (such as food preparation, utensil washing, oral hygiene, showering and flushing the toilet), and (3) third, the ability of people and communities to provide for their social, economic, and cultural well-being, now and in the future.	**Inconsistent** *Note: Section 104(2F) of the RMA only directs that consent authorities must not have regard to clause 1.3(5) or 2.1 of the NPSFM 2020 (which relates to the hierarchy of obligations in the NPSFM 2020). However, it does not otherwise direct that consent authorities must not have regard to provisions of other planning documents, such as regional policy statements, that similarly relate to the hierarchy of obligations. For completeness, LF-WAI-P1 has been given regard to for the purposes of this proposal, but in any case consideration of this policy, or not, does not have any substantial impact on its own on the recommendation in respect of the proposal.* This application prioritises the economic wellbeing of people and communities and as such is not consistent with this hierarchy. The health and wellbeing of waterbodies and freshwater ecosystems and the health needs of people are managed secondarily.	
LF–WAI–P2 Mana whakahaere Recognise and give practical effect to Kāi Tahu rakatirataka in respect of fresh water by:	**Partially consistent** The Applicant has over a relatively extended period of time engaged with mana whenua in relation to this MP4 proposal, as well as in relation to the preliminary MP4 stages, and other miscellaneous applications required to ensure continuity of mining. However, the submission from Kā Rūnaka suggests that the active involvement of mana whenua in	

(1) facilitating partnership with, and the active involvement of, mana whenua in freshwater management and decision-making processes, (2) sustaining the environmental, social, cultural and economic relationships of Kāi Tahu with water bodies, (3) providing for a range of customary uses, including mahika kai, specific to each water body, (4) incorporating mātauraka into decision making, management and monitoring processes, and (5) managing wai and its connections with whenua in a holistic and interconnected way – ki uta ki tai.	freshwater management in relation to this application and others has been hindered by the iterative approach taken by the Applicant in respect of consenting various projects. The CIA prepared by Aukaha indicates that Kāi Tahu relationships with the Taiari, Waihemo, and Waikouaiti catchments have been damaged as a result of past and current mining, and continued mining via MP4 will make it more difficult to maintain and restore connections with the whenua and wai. The CIA contains recommendations as to mitigation measures to address cultural impacts and seeks ongoing consultation and involvement with a view to developing mitigation measures that would uplift mauri post-closure.	
LF–WAI–P3 Integrated management/ki uta ki tai Manage the use of fresh water and land, using an integrated approach that is consistent with tikaka and kawa, that: (1) sustains and, to the greatest extent practicable, restores or improves: a) the natural connections and interactions between water bodies (large and small, surface and ground, fresh and coastal, permanently flowing, intermittent and ephemeral), b) the natural connections and interactions between land and water, from the mountains to the sea, c) the habitats of mahika kai and indigenous species, including taoka species associated with the water bodies, (4) manages the effects of the use and development of land to maintain or enhance the health and	**Inconsistent** The Applicant has demonstrated that it understands the important connections between land and water, and the connections between waterbodies, and manages the mining operation holistically so that impacts can be mitigated where possible. For example, the MWMS captures and prevents mine impacted water from discharging directly to streams in an uncontrolled manner. Nonetheless, the MP4 proposal will disrupt the natural connections and interactions between groundwater and surface water. While the largest disruptions have occurred through previous mining, MP4 will increase the size of the Coronation North, Coronation, Innes Mills, and Golden Bar Pits which will result in increased groundwater flows into pits, and reduced baseflows into streams, which in turn may affect other connected streams. Contamination of groundwater will endure for years to come and will ultimately end up in surface water, either through diffuse or direct discharges. Changes in flow characteristics and water quality may affect mahika kai and indigenous species. The health and wellbeing of freshwater and associated ecosystems will not be maintained.	

wellbeing of freshwater, coastal water and associated ecosystems, (5) encourages the coordination and sequencing of regional or urban growth to ensure it is sustainable, (6) has regard to foreseeable climate change risks, and the potential effects of climate change on water bodies, including on their natural functioning, (7) has regard to cumulative effects, and (8) applies a precautionary approach where there is limited available information or uncertainty about potential adverse effects, in accordance with IM-P6	The cumulative impact of the mining operation over time is already significant, and the MP4 proposal will contribute to further impacts. There remains a substantial degree of uncertainty about the potential adverse of the proposal in respect of freshwater and freshwater ecosystems. This stems from uncertainties inherent in the modelled, as well as uncertainties about the mitigation measures that will be implemented, and the inability to recommend more appropriate consent conditions due to scope limitations. There is risk of significant adverse effects, thus a precautionary approach is warranted.	
LF-WAI-P4 – Giving effect to Te Mana o te Wai All persons exercising functions and powers under this RPS and all persons who use, develop or protect resources to which this RPS applies must recognise that LF-WAI-O1, LF-WAI-P1, LF-WAI-P2 and LF-WAI-P3 are fundamental to upholding Te Mana o te Wai, and must be given effect to when making decisions affecting fresh water, including when interpreting and applying the provisions of the LF chapter.	**Inconsistent** The proposal is inconsistent with LF-WAI-O1, LF-WAI-P1, and LF-WAI-P3 and only partially consistent with LF-WAI-P2. Therefore, it does not give effect to Te Mana o te Wai.	
LF-FW-O1A – Visions set for each FMU and rohe In each FMU and rohe in Otago and within the timeframes specified in the freshwater visions in LF-VM-O2 to LF-VM-O6: (1) healthy freshwater and estuarine ecosystems support healthy populations of indigenous species (including non-diadromous galaxiids and Canterbury mudfish) and mahika kai that are safe for consumption, (2) the interconnection of land, freshwater (including springs, groundwater, ephemeral water	**Partially consistent** The relevant FMUs are: • North Otago FMU • Taieri FMU • Dunedin and Coast FMU Reasons for 'partially consistent' assessment are described in policies LF-VM-O3, LF-VM-O4, and LF-VM-O5 below.	

bodies, wetlands, rivers, and lakes) and coastal water is recognised, (3) fish passage within and between catchments is provided for except where it is desirable to prevent the passage of some fish species in order to protect desired fish species, their life stages, or their habitats, (4) the form, function and character of water bodies reflects their natural characteristics and natural behaviours to the extent reasonably practicable, (5) the ongoing relationship of Kāi Tahu with wāhi tūpuna, including access to and use of water bodies, is sustained, (6) the health of the water supports the health of people and their connections with water bodies, (7) sustainable land and water management practices: a) support food and fibre production and the continued social, economic, and cultural well-being of Otago's people and communities, and b) improve the resilience of communities to the effects of climate change, and c) ensure communities are appropriately serviced by community water supplies, and other three waters infrastructure, (8) direct discharges of wastewater to water bodies are phased out to the extent reasonably practicable, and (9) freshwater is managed as part of New Zealand's integrated response to climate change and renewable electricity generation activities are provided for.		

LF-VM-O3 – North Otago FMU vision By 2050 in the North Otago FMU, and in addition to the matters in LF-FW-O1A: (1) the Waitaki River is managed holistically, ki uta ki tai, despite its catchments spanning the Canterbury and Otago regions, (1A) the national significance of the Waitaki hydroelectricity generation scheme is recognised, and (3) healthy riparian margins, wetlands, estuaries and lagoons support the health of downstream coastal ecosystems.	**Partially consistent** The watercourses within this FMU that are impacted by mining activities including MP4 are Deepdell Creek and Shag River/Waihemo. By 2050, the mine will be approaching the end of the closure phase. Persistent contamination of groundwater and the managed discharge of contaminants into surface water from silt ponds are unlikely to contribute to healthy freshwater and ecosystems. The form, function, and character of Deepdell Creek will continue to be impacted by legacy mining effects. Shag River/Waihemo is unlikely to be affected. Deepdell Creek may not meet the health needs of people if used as a drinking water source. There will be no impacts on the Waitaki River. As the mine will be approaching the end of the closure phase, riparian margins and wetlands are likely to contribute to the health of downstream coastal ecosystems.	
LF-VM-O4 – Taiari FMU vision By 2050 in the Taiari FMU, and in addition to the matters in LF-FW-O1A: (3) the upper and lower catchment wetland complexes, including the Waipōuri/Waihola wetland complex, Upper Taiari wetland complex, and connected tussock areas are protected, restored or enhanced where they have been degraded or lost, (4) the gravel bed of the lower Taiari is restored and sedimentation of the Waipōuri/Waihola wetland complex is reduced, (4A) the national significance of the Waipōuri hydro-electricity generation scheme, and the regional significance of the Deep Stream and Paerau/Patearoa hydro-electricity generation schemes, is recognised and their operation, maintenance and upgrading is provided for, and	**Partially consistent** The watercourses within this FMU that are impacted by mining activities including MP4 are the Mare Burn, as well as smaller tributary streams such as Trimbells Gully and Maori Hen Creek. By 2050, the mine will be approaching the end of the closure phase. Persistent contamination of groundwater and the managed discharge of contaminants into surface water from silt ponds are unlikely to contribute to healthy freshwater and ecosystems. The form, function, and character of Mare Burn and its tributaries will continue to be impacted by legacy mining effects. The Taiari River itself is unlikely to be impacted. The Mare Burn is likely to support the health needs of people. The matters listed in this policy are likely to be unaffected by cumulative impacts of the MP4 activities and other authorised mining	

potential future development of these schemes is provided for, in so far as is consistent with LF-FWO1A(1)-(6) and LF-VM-O4(3), and (5) creative ecological approaches contribute to reduced occurrence of didymo.		
LF–VM–O5 – Dunedin & Coast FMU vision By 2040 in the Dunedin & Coast FMU, and in addition to the matters in LF-FW-O1A: (3) healthy riparian margins, wetlands, estuaries and lagoons support the health of downstream coastal ecosystems, and (4) opportunities to restore the natural form and function of water bodies are promoted wherever practicable.	**Partially consistent** The watercourses within this FMU that are impacted by mining activities including MP4 are the tributaries of the Waikouaiti River, being the NBWR, Murphys Creek, Clydesdale Creek, and Golden Bar Creek. By 2050, the mine will be approaching the end of the closure phase. Persistent contamination of groundwater and the managed discharge of contaminants into surface water from silt ponds are unlikely to contribute to healthy freshwater and ecosystems. The form, function, and character of the NBWR, Murphys Creek, Clydesdale Creek, and Golden Bar Creek will continue to be impacted by legacy mining effects. The NBWR in particular is piped around Frasers Pit rather than flowing from its natural headwaters. The Waikouaiti River is unlikely to be impacted. The Waikouaiti River is likely to support the health needs of people in terms of drinking water. As the mine will be approaching the end of the closure phase, riparian margins and wetlands are likely to contribute to the health of downstream coastal ecosystems.	
LF–FW–O8 – Fresh water In Otago's water bodies and their catchments: (5) The significant and outstanding values of Otago's outstanding water bodies are identified and protected.	**Inconsistent** While due to be reviewed, the RPW provides some indication of waterbodies that have significant values. The Applicant has identified these. • The Mare Burn is identified in the RPW for its significant aquatic values – significant spawning and development areas for salmonids and significant riparian vegetation values. Dr Ryder notes that existing downstream fish barriers, not related to mining activities, are likely to prevent upstream passage of salmonids, which is positive for the catchment's galaxiid population. • The RPW identifies Deepdell Creek as a significant habitat for flathead galaxiid.	

	• NBWR is identified in the RPW as supporting significant habitat for flathead galaxias and hybrid galaxias. • None of the potentially impacted rivers have been identified as having outstanding values. Uncertainties in the water quality monitoring and the proposal to manage water quality to achieve compliance with existing limits (which allow for significant adverse effects on aquatic life) mean there is low confidence that these values will be protected.	
LF–FW–O9 – Wetlands Otago's wetlands are protected from inappropriate subdivision, use and development and, where degraded, restoration is promoted so that: (1) mahika kai and other mana whenua values are sustained and enhanced now and for future generations, (2) in relation to the extent and diversity of indigenous ecosystem types and habitats: (a) for wetlands outside the coastal marine area, there is no net decrease, and preferably an increase, and (b) for natural inland wetlands, there is no decrease, and preferably an increase, other than as provided by the NPSFM, and (3) there is no reduction and, where degraded, there is an improvement in wetland ecosystem health, hydrological functioning, amenity values, extent or water quality, and (4) their flood attenuation and water storage capacity is maintained or improved.	**Inconsistent** The MP4 proposal will directly impact wetlands, including some classified as natural inland wetlands, and including nationally uncommon and critical endangered ephemeral wetlands. Wetland extent and values will be permanently lost. The NPS-FM provides for the loss of natural inland wetlands as a result of mineral extraction and ancillary activities, provided three 'tests' are passed, and effects are managed through application of the effects management hierarchy. In relation to the ephemeral wetlands, the three tests are passed; however, the assessment against the effects management hierarchy directs finds that the activity must be avoided. Hence, there will be an overall reduction in wetland extent.	
LF–FW–O10 – Natural character	**Consistent** Natural character is the term used to describe the degree of naturalness in an area, and includes the natural elements, patterns, processes, and experiential qualities attributes of	

The natural character of wetlands, lakes and rivers and their margins is preserved and protected from inappropriate subdivision, use and development.	an environment. For all attributes, natural character of rivers and wetlands and their margins is already modified by historic and current mining activity, particularly in the Central Mining Area. In this context, additional adverse effects on natural character are likely to be insignificant. The loss of ephemeral wetlands at Coronation and the significant disturbance of rehabilitated areas on the margins of Clydesdale and Golden Bar Creeks will reduce the biotic and abiotic aspects of natural character in these areas. However, mining in this area is provided for by the WDC District Plan, which defines a Macraes Mineral Mining Project Zone. On this basis, I don't consider that the MP4 proposal would constitute an inappropriate use or development.	
LF–FW–P7 – Fresh water Environmental outcomes, attribute states (including target attribute states), environmental flows and levels, and limits ensure that: (1) the health and well-being of water bodies and freshwater ecosystems is maintained or, if degraded, improved, (2) the habitats of indigenous species with life stages dependent on water bodies are protected and sustained, (2A) the habitats of trout and salmon are protected insofar as this is consistent with (2), (2B) fish passage is provided for, except where it is desirable to prevent the passage of some fish species in order to protect desired fish species, their life stages, or their habitats, (3) specified rivers and lakes are suitable for primary contact within the following timeframes: (a) by 2030, 90% of rivers and 98% of lakes, and (b) by 2040, 95% of rivers and 100% of lakes, and (4) resources harvested from water bodies including mahika kai and drinking water are safe for human consumption.	**Inconsistent** I consider that this policy is intended to primarily provide direction for the setting of environmental outcomes, attribute states, environmental flows and levels, and limits in regional plans, and generally does not provide useful direction for the assessment of resource consents. However, the Macraes mining operation, including the MP4 proposal, affects three catchments and multiple sub-catchments. This is a large operation and the headroom provided by the water quality limits in existing consents means there is potential for significant adverse cumulative effects on water quality and aquatic ecology to occur. Complying with these limits will not ensure that the health and wellbeing or waterbodies and freshwater ecosystems are maintained, nor that the habitats of indigenous or introduced species are protected. To the extent that this policy could be relevant, I consider that proposal is inconsistent with this provision.	

LF-FW-P10A – Managing wetlands Otago's wetlands are managed: (1) in the coastal environment, in accordance with CE – Coastal Environment, and (2) by applying clause 3.22(1) to (3) of the NPSFM to all natural inland wetlands, and (3) to improve the ecosystem health, hydrological functioning and extent of wetlands that have been degraded or lost by promoting: a) an increase in the extent and condition of habitat for indigenous species, b) the restoration of hydrological processes, c) control of pest species and vegetation clearance, and d) the exclusion of stock, except where stock grazing is used to enhance wetland values, and e) (e) to sustain and enhance Māori freshwater values.	**Inconsistent** The MP4 proposal will affect both natural inland wetlands and other wetlands that do not meet this definition. For the areas of natural inland wetland that are affected, the effects are managed through application of the effects management hierarchy. The Applicant considers that all residual adverse effects can be offset or compensated for. Taking into account the expert evidence of Mr Davis, I disagree with the Applicant's assessment and consider that: • the activities resulting in the loss of the ephemeral wetlands at Coronation must be avoided; • the loss of natural inland wetlands in the Innes Mills buffer zone can potentially be offset, although insufficient process detail is provided; • the loss of riparian/wetland vegetation mosaic can be compensated for. Therefore, the wetlands will not be managed in accordance with this policy.	
LF–FW–P13 – Preserving natural character and instream values Preserve the natural character and instream values of lakes and rivers and the natural character of their beds and margins by: (1) avoiding the loss of values or extent of a river, unless: (a) there is a functional need for the activity in that location, and (b) the effects of the activity are managed by applying the effects management hierarchy (in relation to natural inland wetlands and rivers), (2) not granting resource consent for activities in (1) unless the consent authority is satisfied that:	**Consistent** Functional need for the GBWRS to be located as proposed will result in a loss of approximately 430 m of extent and associated values. The Applicant proposes to compensate for this loss by protecting a substantially greater extent of river (at least 860 m) within the MEEA which contains similar or better value watercourse which include areas of adjoining riparian and wetland vegetation. This compensation is considered appropriate by Dr Greer in respect of aquatic compensation under the NPS-FM, and appropriate by Mr Davis in respect of indigenous biodiversity compensation under the NPS-IB. There is difficulty delineating aquatic and terrestrial offsetting in respect of river values, where riparian/wetland (not necessarily natural inland wetland) vegetation mosaics exist along the edges of rivers, blurring the line between the aquatic and terrestrial environment and requirements under the relevant NPSs. Regardless, appropriate consent conditions are recommended.	

(a) the application demonstrates how each step of the effects management hierarchy (in relation to natural inland wetlands and rivers) will be applied to the loss of values or extent of the river, and (b) any consent is granted subject to conditions that apply the effects management hierarchy (in relation to natural inland wetlands and rivers) in respect of any loss of values or extent of the river, (c) if aquatic offsetting or aquatic compensation is applied, the applicant has complied with principles 1 to 6 in Appendix 6 and 7 of the NPSFM, and has had to regard to the remaining principles in Appendix 6 and 7 of the NPSFM, as appropriate, and (d) if aquatic offsetting or aquatic compensation is applied, any consent granted is subject to conditions that will ensure that the offsetting or compensation will be maintained and managed over time to achieve the conservation outcomes, (3) establishing environmental flow and level regimes and water quality standards that support the health and well-being of the water body, (4) to the extent practicable, sustaining the form and function of a water body that reflects its natural behaviours, (5) recognising and implementing the restrictions in Water Conservation Orders, (6) preventing the impounding or control of the level of Lake Wanaka, (7) preventing modification that would permanently reduce the braided character of a river,		

(8) controlling the use of water and land that would adversely affect the natural character of the water body, and (9) maintaining or enhancing the values of riparian margins to support habitat and biodiversity, reduce contaminant loss to water bodies and support natural flow behaviour.		
LF–LS–P18 – Soil erosion Minimise soil erosion, and the associated risk of sedimentation in water bodies, resulting from land use activities by: (2) maintaining vegetative cover on erosion-prone land, to the extent practicable, (1) implementing management practices to minimise the potential for soil to be discharged to water bodies, including by controlling the timing, duration, scale and location of soil exposure, and (3) promoting activities that enhance soil retention.	**Consistent** The MP4 activities will be undertaken in accordance with erosion and sediment control plans which will include the matters listed in this policy. Consent conditions will require these plans to be prepared by a SQEP and provided to council for certification. These will ensure that soil erosion and associated sedimentation is minimised.	
LF–LS–P21 – Land use and fresh water The health and well-being of water bodies and freshwater ecosystems is maintained or, if degraded, improved, to meet environmental outcomes set for Freshwater Management Units and/or rohe by: (1) reducing or otherwise managing the adverse effects of direct and indirect discharges of contaminants to water from the use and development of land, (2) managing land uses that may have adverse effects on the flow of water in surface water bodies or the recharge of groundwater, (3) recognising the drylands nature of some of Otago and the resulting low water availability, and	**Inconsistent** The health and wellbeing of freshwater will not be maintained and not all of the outcomes for the relevant FMUs are likely to be achieved. While the MP4 proposal does include measures to reduce the adverse effects of direct and indirect discharges to water, there are other mitigation measures recommended and relied on by experts that have not been integrated into consent conditions by the Applicant. I have included these measures in the recommended suite of consent conditions (Appendix X) where possible, but some of these measures require additional consents or require management of other mining features for which existing consents are already held. The MP4 activities will adversely affect the flow of water in surface waterbodies via reduced groundwater contributions to baseflows. Riparian vegetation will be removed during the MP4 mining and therefore those values will not be maintained. Compensatory actions are proposed which involve enhancing other riparian vegetation with the MEEA.	

(4) maintaining or, where degraded, enhancing the values of riparian margins.		
ECO–O1 – Indigenous biodiversity Otago's indigenous biodiversity is healthy and thriving and any overall decline in condition, quantity and diversity is halted.	**Inconsistent** The MP4 proposal, if undertaken as proposed, will result in an overall loss in indigenous biodiversity. There will be a net loss in wetland extent, lizard populations and habitat, and vulnerable moth population and habitat because these losses cannot be adequately offset. This loss would result from all three key mining areas, but the largest losses would result from the Golden Bar proposal, followed by Coronation, and then Innes Mills. If my assessment were solely limited to indigenous biodiversity effects in relation to natural inland wetlands, my conclusions would be unchanged.	
ECO-P2 – Identifying significant natural areas and taoka Identify and map: (1) the areas of significant indigenous vegetation or significant habitat of indigenous fauna that qualify as significant natural areas using the assessment criteria in APP2 and in accordance with ECO-M2, and (2) where appropriate, indigenous species and ecosystems that are taoka, including those identified by mana whenua as requiring protection, in accordance with ECO-M3.	**Consistent** The Applicant has considered the significance criteria set out in APP2 of this ORPS and determined that certain vegetation communities at all three main project areas meet the significance criteria of this ORPS. These are: • Ephemeral wetlands, riparian vegetation, tussockland at Coronation. • Tussockland, riparian vegetation at Frasers-Innes Mills • Tussockland, riparian vegetation, shrublands at Golden Bar • Ephemeral wetland near Golden Bar Road Realignment It is noted that these significant areas are not technically SNAs as per the definition as they not included in any plan or policy statement as such areas. Taoka species (plants and birds) are also identified.	
ECO-P4 – Provision for new activities Outside of the coastal environment, maintain Otago's indigenous biodiversity by following the sequential steps in the effects management hierarchy (in relation to indigenous biodiversity) when making decisions on plans, applications for resource consent or notices of requirement for the	**Inconsistent** The Applicant has generally followed the steps in the effects management hierarchy and as a result the following activities must be avoided as they cannot be avoided, minimised, remedied, or offset, and compensation is not available (or has not been proposed): • The loss of ephemeral wetlands at Coronation (compensation not available)	

following activities in significant natural areas, or where they may adversely affect indigenous species and ecosystems that are taoka that have been identified by mana whenua as requiring protection: … (1A) the development, operation and maintenance of mineral extraction activities that provide a significant national public benefit that could not otherwise be achieved within New Zealand and that have a functional need or operational need to locate within the relevant significant natural area(s) or where they may adversely affect indigenous species or ecosystems that are taoka, and there are no practicable alternative locations, …	• The loss of 12 rock tors from Coronation and Golden Bar (compensation not available) • The disturbance and loss of habitat of the threatened moth *Orocrambus sophistes* near Golden Bar (compensation not available) • The loss of natural inland wetlands adjacent to the Innes Mills Pit (compensation not proposed) The Applicant proposes to continue with these activities which is inconsistent with the effects management hierarchy, which directs that these activities be avoided.	
ECO–P6 – Maintaining indigenous biodiversity Outside the coastal environment and excluding areas protected under ECO-P3, manage Otago's indigenous biodiversity by: (1) applying the effects management hierarchy (in relation to indigenous biodiversity) to manage significant adverse effects on indigenous biodiversity), and (2) requiring the maintenance of indigenous biodiversity for all other adverse effects of any activity, and (3) notwithstanding (1) and (2) above, for regionally significant infrastructure and nationally significant infrastructure that is either renewable electricity generation or the National Grid avoid, remedy or mitigate adverse effects to the extent practicable.	**Inconsistent** The assessment provided for ECO-P4 applies here as well. The significant adverse effects on indigenous biodiversity must be avoided in accordance with the hierarchy.	

HAZ–NH–O2 – Adaptation Otago's people, communities, and property are prepared for and able to adapt to the effects of natural hazards, including natural hazard risks that are exacerbated by climate change.	**Consistent** Mining activities can exacerbate natural hazard risks. The risk of most relevance seismic risk. Geotechnical assessments provided with the application and reviewed by Mr Macdiarmid on behalf of the three Councils, find that the pit walls, waste rock stacks, and FTSF will be appropriately stable under both static and seismic conditions, provided the recommended consent conditions are implemented. The mitigation measures, such as the establishment of an exclusion zone and ensuring an appropriate FoS for public roads within that zone, that have been proposed to manage the risk of instability in beyond the pit crests are considered geotechnically reasonable, although difficulties in ensuring these measures are maintained *in perpetuity* have been raised. In my opinion, ensuring that these mitigation measures are recorded in consent conditions (on the DCC/WDC land use consent, which does not expire) provides a reasonable level of surety. A covenant in favour of the Consent Authority could be used to ensure these maintenance requirements are met. This is a matter to be considered by the DCC and WDC land use consent.	
HAZ–NH–P1 – Identifying areas subject to natural hazards For hazards not identified in accordance with HAZ-NH-P1A, using the best available information, identify areas where natural hazards may adversely affect Otago's people, communities and property, by assessing: (1) the hazard type and characteristics, multiple and cascading hazards, where present, any cumulative effects, any effects of climate change, the likelihood of different hazard scenarios occurring, and any other exacerbating factors.		
HAZ–NH–P2 – Risk assessments Within areas identified under HAZ-NH-P1 as being subject to natural hazards, assess natural hazard risk as significant, tolerable, or acceptable by determining a range of natural hazard event scenarios and their potential consequences in accordance with the criteria set out within APP6.		
HAZ–NH–P6 – Protecting features and systems that provide hazard mitigation Protect the ability of natural or modified features and systems to mitigate the effects of natural hazards and climate change.		
HAZ–CL–O3 – Contaminated land	**Consistent**	

Contaminated land and waste materials are managed to protect human health and do not harm Kāi Tahu, values and the environment in Otago	Mine process tailings are considered hazardous waste. Storage of tailings within the FTSF will result in creation of contaminated land, noting that this is already provided for by the Stage 1 FTSF (previously consented). Discharge of additional tailings into the Stage 2 pit (this application) will not result in any new contaminated land. This Central Mining Area of the site is already identified as a HAIL site (HAIL.01146.01). The contaminated land will result in groundwater contamination via seepage from the FTSF. This is not considered to present an unacceptable risk in the wider context of the site.	
HAZ–CL–P13 – Identifying contaminated land Identify sites of known or potentially contaminated land in Otago.		
HAZ–CL–P14 – Managing contaminated land Manage contaminated or potentially contaminated land so that it does not pose an unacceptable risk to people and the environment, by: (1) assessing and, if required, monitoring contaminant levels and environmental risks, (2) protecting human health in accordance with regulatory requirements, (3) avoiding, as the first priority, and only where avoidance is not reasonably practicable, mitigating or remediating, adverse effects of the contaminants on the environment, (4) requiring closed landfills to be managed in accordance with a closure plan that sets out monitoring requirements and, where necessary, any remedial actions required to address ongoing risks, and (5) prioritising the identification and management of closed landfills and contaminated land at risk from the effects of climate change.		

Regional Plans

Regional Plan: Water for Otago		
Provision	**Assessment**	

Objective 5.3.2 To maintain or enhance the spiritual and cultural beliefs, values and uses of significance to Kāi Tahu, identified in Schedule 1D, as these relate to Otago's lakes and rivers.	**Inconsistent** The Shag River, Taieri River, and Waikouaiti River are all identified in this schedule as supporting values of significance to Kāi Tahu. The MP4 proposal and the ongoing effects of past and present mining will not contribute to the maintenance or enhancement of the spiritual and cultural beliefs, values and uses of rivers. I do note that Kāi Tahu consider Schedule 1D to be long out of date and inconsistent with their environmental management perspectives.	
Objective 5.3.3 To protect the natural character of Otago's lakes and rivers and their margins from inappropriate subdivision, use or development.	**Consistent** The MP4 proposal is not considered an inappropriate use or development as mining in this area is provided for by the WDC District Plan, which defines a Macraes Mineral Mining Project Zone.	
Policy 5.4.1 To identify the following natural and human use values supported by Otago's lakes and rivers, as expressed in Schedule 1: (a) Outstanding natural features and landscapes; (b) Areas with a high degree of naturalness; (c) Areas of significant indigenous vegetation, significant habitats of indigenous fauna, and significant habitats of trout and salmon; (d) Ecosystem values; (e) Water supply values; (f) Registered historic places; and (g) Spiritual and cultural beliefs, values and uses of significance to Kāi Tahu.	**Consistent** These have been identified in the surface water technical assessments.	
Policy 5.4.2 In the management of any activity involving surface water, groundwater or the bed or margin of any lake or river, to give priority to avoiding, in preference to remedying or mitigating: (1) Adverse effects on: a) Natural values identified in Schedule 1A;	**Inconsistent** The Mare Burn and Deepdell Creek are identified in Schedule 1A. The Shag River/Waihemo, Taieri River, and Waikouatiti River are identified in Scheduled 1D. Given the location of the mine it is unlikely that complete avoidance of effects on these values could be achieved. Based only on the modelling, adverse effects on these values would likely be minimal. However, the proposal to manage water quality to achieve compliance with existing compliance limits would not serve to further avoid adverse effects, nor would I consider it	

b) Water supply values identified in Schedule 1B; c) Registered historic places identified in Schedule 1C, or archaeological sites in, on, under or over the bed or margin of a lake or river; d) Spiritual and cultural beliefs, values and uses of significance to Kāi Tahu identified in Schedule 1D; e) The natural character of any lake or river, or its margins; f) Amenity values supported by any water body; and (2) Causing or exacerbating flooding, erosion, land instability, sedimentation or property damage.	appropriate mitigation, given there are other mitigation options available to the applicant, and these mitigations were assumed in the modelling.	
Policy 5.4.2A The loss of river extent and values is avoided, unless the council is satisfied: (a) That there is a functional need for the activity in that location; and (b) The effects of the activity are managed by applying the effects management hierarchy.	**Consistent** The MP4 proposal will result in the loss of approximately 430 m of river extent and associated values, as well as the loss of other riparian values. There is a functional need of these activities in these locations, the effects management hierarchy has been applied, and the loss can be compensated.	
Policy 5.4.4 To recognise Kāi Tahu's interests in Otago's lakes and rivers by promoting opportunities for their involvement in resource consent processing.	**Partially consistent** The Applicant has over a relatively extended period of time engaged with mana whenua in relation to this MP4 proposal, as well as in relation to the preliminary MP4 stages, and other miscellaneous applications required to ensure continuity of mining. However, as set out in the submission from Kā Runaka, the approach taken to progressively consent the MP4 project in stages, and the updates of the MP4 application material made throughout the consenting process (in response to s92 RFIs and additional changes made by the Applicant) has hindered the ability of Kā Rūnaka to holistically assess the cultural impacts of the proposal.	

	Ultimately, the result is the application was put forward and progressed without an assessment of cultural impacts endorsed by Rūnaka.	
Objective 6.3.1 To retain flows in rivers sufficient to maintain their life-supporting capacity for aquatic ecosystems, and their natural character.	**Inconsistent** MP4 in combination with other mining activities will reduce the flows in rivers; however, this is not expected to be on scale that would mean the life-supporting capacity for aquatic ecosystems or their natural character could not be maintained based on this effect alone.	
Objective 6.3.2 To maintain long term groundwater levels and water storage in Otago's aquifers.	Groundwater is taken passively via seepage inflows into open pits. Groundwater is also taken from bores in and around open pits as necessary to ensure pit stability and accessibility for mining. The open pits will have a long-term 'dewatering' effect on the underlying aquifer that will continue during pit lake filling until equilibrium is reached.	
Policy 6.4.0A To ensure that the quantity of water granted to take is no more than that required for the purpose of use taking into account: (a) How local climate, soil, crop or pasture type and water availability affect the quantity of water required; and (b) The efficiency of the proposed water transport, storage and application system.	**Consistent** The water taken will be no more than required to effect pit lake dewatering or to maintain water levels in and around open pits or to use at the processing plant or elsewhere in the MWMS. I note that the surface water takes are not from any natural watercourse.	
Policy 6.4.1A A groundwater take is allocated as: (a) Surface water, subject to a minimum flow, if the take is from any aquifer in Schedule 2C; or (b) Surface water, subject to a minimum flow, if the take is within 100 metres of any connected perennial surface water body; or (c) Groundwater and part surface water if the take is 100 metres or more from any connected perennial surface water body, and depletes that water body	**Consistent** The groundwater takes are allocated as groundwater in accordance with part (d).	

most affected by at least 5 litres per second as determined by Schedule 5A; or (d) Groundwater if (a), (b) and (c) do not apply.		
Policy 6.4.10A5 In managing the taking of groundwater, avoid in any aquifer: (a) Contamination of groundwater or surface water; and (b) Permanent aquifer compaction.	**Inconsistent** Permanent groundwater contamination will occur. Very long-term surface water contamination will occur.	
Policy 6.4.16 In granting resource consents to take water, or in any review of the conditions of a resource consent to take water, to require the volume and rate of take to be measured in a manner satisfactory to the Council unless it is impractical or unnecessary to do so.	**Consistent** Consent conditions are recommended that give effect to the Management (Measuring and Reporting of Water Takes) Regulations 2010 and Amendment Regulations 2020. This is the manner deemed satisfactory to Council.	
Objective 7.A.1 To maintain water quality in Otago lakes, rivers, wetlands, and groundwater, but enhance water quality where it is degraded.	**Inconsistent** Water quality will not be maintained. Both groundwater and surface water contamination will increase compared to the current state.	
Objective 7.A.2 To enable the discharge of water or contaminants to water or land, in a way that maintains water quality and supports natural and human use values, including Kāi Tahu values.	**Inconsistent** Based on the available information and the conditions proposed by the Applicant, the discharge of contaminants to land and water are unable to be managed in a way that maintains water quality.	
Objective 7.A.3 To have individuals and communities manage their discharges to reduce adverse effects, including cumulative effects, on water quality.	**Inconsistent** Discharges will not be managed to reduce adverse effects, including cumulative effects. While these effects may be reduced from what they could potentially be, the MP4 proposal considered alongside the effects of other mining activities at the site will result in a degradation of water quality from the current state.	
Policy 7.B.1 Manage the quality of water in Otago lakes, rivers, wetlands and groundwater by:	**Partially consistent** The Applicant considers that water quality will generally achieve outcomes consistent with Schedule 15. The characteristics of good quality water are likely to be mostly achievable,	

(a) Describing, in Table 15.1 of Schedule 15, characteristics indicative of Good Quality Water; and (b) Setting, in Table 15.2 of Schedule 15, receiving water numerical limits and targets for achieving Good Quality Water; and (c) Maintaining, from the dates specified in Schedule 15, Good Quality Water; and (d) Enhancing water quality where it does not meet Schedule 15 limits, to meet those limits by the date specified in the Schedule; and (e) Recognising the differences in the effects and management of point and non-point source discharges; and (f) Recognising discharge effects on groundwater; and (g) Promoting the discharge of contaminants to land in preference to water.	as they relate to colour, clarity, smell, sediment, algae, and bank appearance of watercourses, and for the most part these are not expected to be of concern for the proposal (with the exception of algae, for which there is a chance of significant growth in Deepdell Creek). I do not understand how the proposal could be consistent with the numerical outcomes set in Schedule 15, as the only parameter regularly monitored within receiving surface waters at the mine is nitrate-nitrogen, and the compliance limit (2.4 mg/L) is set well above the Schedule 15 targets (0.015 mg/L) for the rivers that are listed in the schedule. I do note that the Schedule 15 limit is a fairly ambitious target and is set well below the NPS-FM attribute state A limit of <1.0 mg/L for nitrogen toxicity.	
Policy 7.B.4 When considering any discharge of water or contaminants to land, have regard to: (a) The ability of the land to assimilate the water or contaminants; and (b) Any potential soil contamination; and (c) Any potential land instability; and (d) Any potential adverse effects on water quality; and (e) Any potential adverse effects on use of any proximate coastal marine area for contact recreation and seafood gathering.	**Consistent** Regard has been had to these matters insofar as they are relevant to the discharges to land sought by this application, which are discharge of waste rock to land, and discharges of water and contaminants to land within open pits and the FTSF.	
Policy 7.B.7	**Partially consistent** Erosion and sediment control measures will continue to be implemented at the site to manage the risk of sediment entering watercourses. Silt ponds also perform a sediment	

Encourage land management practices that reduce the adverse effects of water or contaminants discharged into water.	retention function in relation to waste rock stacks still being constructed or rehabilitated. However, other land management practices recommended by the Applicant's technical experts, such a source control methods to reduce advective oxygen flows in WRS, rehabilitation to minimise infiltration and seepage, passive treatment systems, etc. have not been included in consent conditions by the Applicant. To the extent possible, I have recommended these conditions.	
Policy 7.C.3 When considering any resource consent to discharge a contaminant to water, to have regard to any relevant standards and guidelines in imposing conditions on the discharge consent.	**Inconsistent** The Applicant has modelled the effects of various discharges and compared these to relevant guidelines and standards. However, in my opinion the Applicant has not had sufficient regard to these guidelines because the proposed consent conditions are completely inconsistent with relevant modern guidelines. Due to scope constraints, I am unable to recommend conditions that would be consistent with guidelines.	
Policy 7.C.4 The duration of any new resource consent for an existing discharge of contaminants will take account of the anticipated adverse effects of the discharge on any natural and human use value supported by an affected water body, and: (a) Will be up to 35 years where the discharge will meet the water quality standard required to support that value for the duration of the resource consent; (b) Will be no more than 15 years where the discharge does not meet the water quality standard required to support that value but will progressively meet that standard within the duration of the resource consent; (c) Will be no more than 5 years where the discharge does not meet the water quality standard required to support that value; and (d) No resource consent, subsequent to one issued under (c), will be issued if the discharge still does not	**Inconsistent** This policy is of limited relevance as few of the consents are direct replacements of existing discharges and because the freshwater receiving environment is impacted by many activities. However, the Golden Bar discharges (from the pit and Clydesdale silt pond, are replacements. Therefore, to the extent that it is relevant, this policy would direct that the duration of any new resource consent for these activities should be no more than five years, because the discharges (in combination with other discharges) will not meet the water quality standards required to support the aquatic values. It is noted that cumulative effects are the primary issue in respect of water and aquatic ecosystems.	

meet the water quality standard required to support that value.		
Objective 9.3.3 To maintain the quality of Otago's groundwater.	**Inconsistent** The activities subject to this MP4 application, in combination with the existing and future effects of separately authorised mining activities, will directly contribute to the long-term contamination of groundwater.	
Policy 9.4.21 To support appropriate codes of practice and management guidelines for land use activities which may result in contaminants entering groundwater.		
Objective 10.3.1 Otago's wetlands and their individual and collective values and uses will be maintained or enhanced for present and future generations.	**Inconsistent**	
Policy 10.4.8 The loss of natural inland wetlands is avoided, their values are protected, and their restoration is promoted, except where: (a) The loss of extent or values arises from any of the following: i. The customary harvest of food or resources undertaken in accordance with tikanga Maori ii. Restoration activities iii. Scientific research iv. The sustainable harvest of sphagnum moss v. The construction or maintenance of wetland utility structures (as defined in the Resource Management (National Environmental Standards for Freshwater) Regulations 2020 vi. The maintenance or operation of specified infrastructure, or other infrastructure (as defined in the Resource Management (National Environmental Standards for Freshwater) Regulations 2020	**Inconsistent** The loss of natural inland wetlands will occur as a result of mineral extraction activities, and activities ancillary to mineral extraction. These activities are not provided for by this policy and the loss of wetland extent must be avoided. I note that this policy was inserted into the RPW to give effect to the NPS-FM. However, it does not achieve this because it does not incorporate all of the activities provided for in NPS-FM clause 3.22.	

vii. Natural hazard works (as defined in the Resource Management (National Environmental Standards for Freshwater) Regulations 2020; or (b) The regional council is satisfied that: i. The activity is necessary for the construction or upgrade of specified infrastructure; and ii. The specified infrastructure will provide significant national or regional benefits; and iii. There is a functional need for the specified infrastructure in that location; and iv. The effects of the activity are managed through applying the effects management hierarchy.		
Objective 10A.1.1 Facilitate an efficient and effective transition from the operative freshwater planning framework toward a new integrated regional planning framework, by managing: (a) The take and use of freshwater; and (b) The replacement of Deemed Permits, and (c) The replacement of water permits for takes and uses of freshwater where those water permits expire prior to 31 December 2025.	**Contrary** The water permits being replaced by this application do not expire before 31 December 2025. The permits sought are for the taking and use of freshwater and this policy directs that these must be granted for a duration of no more than six years. I understand that the Applicant disagrees with the application of this policy on the basis that the proposed water abstractions and uses were not contemplated during drafting of Chapter 10A, do not result in any new adverse effects or create any allocation issues, and that granting these permits for a longer term will not affect ORC's ability to transition to a new integrated regional planning framework efficiently and effectively.	
Policy 10A.2.2 Duration Irrespective of any other policies in this Plan concerning consent duration, only grant resource consents for takes and uses of freshwater, where this activity was not previously authorised by a Deemed Permit or by a water permit expiring prior to 31	Nonetheless, this policy applies to all the taking and use of all freshwater and provides a clear directive. The Applicant has sought consent durations ranging from 22-35 years for the relevant water permits which is contrary to this policy.	

December 2025, for a duration of no more than six years.		
Regional Plan: Waste for Otago (RPWaste)		
Provision	**Assessment**	
Objective 5.3.1 To avoid, remedy or mitigate any adverse effects of contaminated sites.	**Consistent** Mine process tailings are considered hazardous waste. Storage of tailings within the FTSF will result in creation of contaminated land, noting that this is already provided for by the Stage 1 FTSF (previously consented). Discharge of additional tailings into the Stage 2 pit (this application) will not result in any new contaminated land. This Central Mining Area of the site is already identified as a HAIL site (HAIL.01146.01). The contaminated land will result in groundwater contamination via seepage from the FTSF. Long-term rehabilitation of the FTSF will be a pit lake.	
Objective 5.3.2 To avoid further site contamination.		
Policy 5.4.3 To contain contaminated sites and rehabilitate them to the extent that is practicable having regard to the use to which the land is to be put.		
Regional Plan: Air for Otago (RPA)		
Provision	**Assessment**	
Objective 6.1.1 To maintain ambient air quality in parts of Otago that have high air quality and enhance ambient air quality in places where it has been degraded.	**Consistent** Existing ambient air quality is good and will be maintained.	
Objective 6.1.2 To avoid adverse localised effects of contaminant discharges into air on: (a) Human health; (b) Cultural, heritage and amenity values; (c) Ecosystems and the plants and animals within them; and (d) The life-supporting capacity of air.	**Partially Consistent** It is not clear to me how this objective, when considered in isolation, would enable any discharge to air activity in Otago to have any adverse effects. The note under this objective in the RPA states that *"this objective is implemented by all the policies in this plan."* However, policies written to give effect to this objective do not require that all adverse effects be avoided. Complete avoidance of adverse effects is a very high bar, and it is unlikely that any mine site with large dust sources and low rainfall could completely avoid localised adverse effects on amenity values when there are sensitive receptors located reasonably close by. Nonetheless, as set out in the evidence of Mr Iseli, nuisance dust effects at nearby sensitive receptors are likely to be minor, provided dust mitigation methods are diligently applied.	

	The discharges are not expected to result in adverse effects on human health, ecosystems, or the life-supporting capacity of air beyond the land owned by the Applicant.	
Objective 6.1.3 To allow for the sustainable use of Otago's air resource.	**Consistent** On balance, the effects of the proposal, including the discharge of dust and odour to air, are considered to be acceptable. On this basis I consider that the air resource is used sustainably.	
Policy 7.1.1 To recognise and provide for the relationship Kāi Tahu have with the air resource through procedures that enable Kāi Tahu to participate in management of the air resource.	**Consistent** The application was prepared without reference to a CIA endorsed by Kā Rūnaka, as such a CIA was not available. I have considered the CIA that has since been submitted, as well as the submission from Kā Rūnaka. Neither of these documents describe any concerns about the state of the air quality resource nor list any recommendations in relation to the management of the air discharges proposed as part of this MP4 application. I have therefore relied on the expert evidence of Mr Iseli in recommending appropriate conditions for the discharge permits for the protection of the air resource.	
Policy 8.1.1 To have regard to the Otago Goal Levels identified in Schedule 1 and comply with the Resource Management (National Environmental Standards Relating to Certain Air Pollutants, Dioxins and Other Toxics) Regulations 2004 in managing the region's ambient air resource.	**Consistent** Based on the historic monitoring described in the Beca report and the expert evidence of Mr Iseli, the Otago Goal Level for PM_{10}, which is set at 35 $\mu g/m^3$ is unlikely to be breached at the location of any sensitive receptor.	
Policy 8.2.3 In the consideration of any application to discharge contaminants into air, Council will have: (a) Particular regard to avoiding adverse effects including cumulative effects on: i. Values of significance to Kāi Tahu; ii. The health and functioning of ecosystems, plants and animals; iii. Cultural, heritage and amenity values; iv. Human health; and v. Ambient air quality of any airshed; and	**Consistent** To the extent that it is possible to 'avoid' adverse effects of dust discharges on the listed matters, without avoiding the dust-generating activity itself, this will be done. Use of water to dampen exposed surfaces such as roads and the FTSF may in some situations be sufficient to avoid adverse dust effects. Where effects are not completely avoided, they will be minimised. Monitoring is recommended to ensure that the amount and frequency of dust generated by the MP4 activities, in combination with separately authorised mining activities, is understood and so that rapid response to dust events can be achieved.	

(b) Regard to any existing discharge from the site, into air, and its effects.		
Policy 8.2.4 The duration of any permit issued to discharge contaminants into air will be determined having regard to: (a) The mass and nature of the discharge; (b) The nature and sensitivity of the receiving environment; and (c) Any existing discharge from the site, into air, and its effects.	**Consistent** Regard has been had to these matters where applicable, noting that for all locations other than Golden Bar, the air discharges are being processed as s127 variations, and hence the consent duration is not a matter of relevance.	
Policy 8.2.5 To require, as appropriate, that provision be made for review of the conditions of any resource consent to discharge contaminants into air.	**Consistent** Review conditions are recommended for the new discharge permit at Golden Bar and are already included as consent conditions on the existing discharge permits.	
Policy 8.2.8 To avoid discharges to air being noxious, dangerous, offensive or objectionable on the surrounding local environment.	**Consistent** The discharges are not likely to be noxious, dangerous, offensive, or objectionable on the local environment.	
Policy 10.1.1 The Otago Regional Council will encourage: (a) People undertaking land use activities to adopt management practices to avoid, remedy or mitigate any adverse effects of dust beyond the boundary of the property; and (b) City and district councils to use land use planning mechanisms and other land management techniques to manage land use activities which have the potential to result in dust beyond the boundary of the property.	**Consistent** Consent conditions require implementation of a Dust Management Plan which contains management practices and methods to avoid or mitigate adverse effects of dust beyond the site boundary. Monitoring of TSP is also recommended to ensure that effects are not greater than anticipated and to trigger rapid actions in response to specific dust events.	
Policy 15.1.1 To support and promote, as appropriate, central government initiatives to control and minimise emissions of greenhouse gases and ozone layer depleting substances.	**Consistent** Consent conditions requiring implementation and regular review of a Greenhouse Gas Mitigation Plan with (aimed at minimising greenhouse gas emissions from the site) are	

	considered to be appropriately supportive of central government initiatives to control and minimise greenhouse gases.	

Iwi Management Plans

Kāi Tahu ki Otago Natural Resource Management Plan 2005		
Provision	**Assessment**	
5.2 Overall Objectives i. The rakātirataka and kaitiakitaka of Kāi Tahu ki Otago is recognised and supported. ii. Ki Uta Ki Tai management of natural resources is adopted within the Otago region. iii. The mana of Kāi Tahu ki Otago is upheld through the management of natural, physical, and historic resources in the Otago Region. iv. Kāi Tahu ki Otago have effective participation in all resource management activities within the Otago Region. 5.3.3 Wai Māori General Objectives i. The spiritual and cultural significance of water to Kāi Tahu ki Otago is recognised in all water management. ii. The waters of the Otago Catchment are healthy and support Kāi Tahu ki Otago customs. iii. Contaminants being discharged directly or indirectly to water are reduced. iv. Flow regimes and water quality standards are consistent with the cultural values of Kāi	**Inconsistent** As stated in the CIA, the cumulative effects of the Macraes Gold Project on mana, mauri, tapu and whakapapa, are significant. The proposed expansion of the Macraes Gold Project will have further impacts on these values. The iterative approach to consenting the MP4 proposal has hindered the ability of Kāi Tahu to meaningfully engage with OGL or to holistically assess cumulative effects. Kā Rūnaka state that the application will not enable, nor will it support, their whānau, their whenua, their waimāori, their waitai, their tamariki, their mokopuna, and all future generations, to flourish. This NRMP aims to reduce the discharge of contaminants into water, to protect and restore the mauri of all water, protect wāhi tapu from inappropriate activities, to protect habitats and the wider needs of mahika kai, taoka species and other species of importance to Kāi Tahu, achieve recognition of Kāi Tahu relationship with whenua and cultural landscapes, and to protect the life supporting capacity and ensure mauri of air is maintained for future generations. The proposal is generally inconsistent with the objectives and policies of this plan.	

Tahu ki Otago and are implemented throughout the Otago Region and lower Waitaki catchment. 5.3.4 Wai Māori General Policies 1. To require an assessment of instream values for all activities affecting water. 2. To promote the cultural importance of water to Kāi Tahu ki Otago in all water management within the Otago Region and Lower Waitaki Catchment. 3. To protect and restore the mauri of all water. 4. To encourage the use of the Cultural Health Index as a tool for monitoring waterways. 10. To encourage all stormwater be treated before being discharged. 11. To encourage identification of non-point source pollution and mitigate, avoid or remedy adverse effects on Kāi Tahu ki Otago values. 12. To encourage Kāi Tahu ki Otago input into the development of monitoring programmes. 13. To require monitoring of all discharges be undertaken on a regular basis and all information, including an independent analysis of monitoring results, be made available to Kāi Tahu ki Otago. 14. To encourage Management Plans for all discharge activities that detail the procedure for containing spills and including plans for extraordinary events.		

15. To require all discharge systems be well maintained and regularly serviced. Copies of all service and maintenance records should be available to Kāi Tahu ki Otago upon request. 16. To require re-vegetation with locally sourced indigenous plants for all disturbed areas. Re-vegetation should be monitored by an assessment of the vegetative cover at one growing season after establishment and again at three seasons from establishment. 17. To require visible signage informing people of the discharge area; such signs are to be written in Māori as well as English. 18. To require groundwater monitoring for all discharges to land. 54. To promote land use that suits the type of land and climatic conditions. 55. To oppose the draining of wetlands. All wetlands are to be protected. 56. To promote integrated riparian management throughout entire catchments. 57. To oppose the indiscriminate use of chemicals or poisons in or near waterways. 5.4.3 Wāhi Tapu Objectives i. All wahi tapu are protected from inappropriate activities. ii. Kāi Tahu ki Otago have access to wahi tapu.		

iii. Wahi tapu throughout the Otago region are protected in a culturally appropriate manner. 5.4.4 Wāhi Tapu General Policies 1. To require consultation with Kāi Tahu ki Otago for activities that have the potential to affect wāhi tapu. 5. To promote the use of Accidental Discovery Protocols for any earth disturbance work. 6. To require all Māori archaeological finds to remain the cultural property of Kāi Tahu ki Otago. 7. To discourage all discharges near wāhi tapu. 5.5.3 Mahika Kai and Biodiversity Objectives i. Habitats and the wider needs of mahika kai, taoka species and other species of importance to Kāi Tahu ki Otago are protected. ii. Mahika kai resources are healthy and abundant within the Otago Region. iii. Mahika kai is protected and managed in accordance with Kāi Tahu ki Otago tikaka. iv. Mahika kai sites and species are identified and recorded throughout the Otago Region. v. Indigenous plant and animal communities and the ecological processes that ensure their survival are recognised and protected to restore and improve indigenous biodiversity within the Otago Region.		

vi. To restore and enhance biodiversity with particular attention to fruiting trees so as to facilitate and encourage sustainable native bird populations. ix. To create a network of linked ecosystems for the retention of and sustainable utilisation by native flora and fauna. 5.5.4 Mahika Kai and Biodiversity General Policies 1. To promote catchment-based management programmes and models, such as Ki Uta Ki Tai. 3. To encourage collaborative research into indigenous biodiversity. 4. To require Kāi Tahu ki Otago participation in the management of mahika kai, both introduced and indigenous. 5. To identify mahika kai sites and species of importance to Kāi Tahu ki Otago. 6. To protect and enhance physical access for Kāi Tahu ki Otago to mahika kai sites. 7. To require that all assessments of effects on the environment include an assessment of the impacts of the proposed activity on mahika kai. 12. To protect and enhance existing wetlands, support the reinstatement of wetlands and promote assistance for landowners for fencing-off wetlands. 16. To require that hazardous operations and the use, transportation and storage of		

hazardous substances are not to impact mahika kai and other cultural values. 5.6.3 Cultural Landscapes Objectives i. The relationship that Kāi Tahu ki Otago have with land is recognised in all resource management activities and decisions. ii. The protection of significant cultural landscapes from inappropriate use and development. iii. The cultural landscape that reflects the long association of Kāi Tahu ki Otago resource use within the Otago region is maintained and enhanced. 5.6.4 Cultural Landscapes General Policies 1. To identify and protect the full range of landscape features of significance to Kai Tahu ki Otago. 6. To promote the identification of areas of historic heritage in collaboration with Local Government Agencies. 19. To require all earthworks, excavation, filling or the disposal of excavated material to: i. Avoid adverse impacts on significant natural landforms and areas of indigenous vegetation; ii. Avoid, remedy, or mitigate soil instability; and accelerated erosion; iii. Mitigate all adverse effects. 24. To discourage the erection of structures, both temporary and permanent, in		

culturally significant landscapes, lakes, rivers or the coastal environment. 5.7.2 Air and Atmosphere Objectives i. Kai Tahu ki Otago sites of significance are free from odour, visual and other pollutants. ii. Kai Tahu ki Otago are meaningfully involved in the management and protection of the air resource. iii. The life supporting capacity and mauri of air is maintained for future generations. 5.7.3 Air and Atmosphere Policies 1. To require earthworks and discharges to air consider the impact of dust and other air-borne contaminants on health, mahika kai, cultural landscapes, indigenous flora and fauna, wahi tapu and taoka. 3. To require Cultural Assessments for any discharges to air including agrochemicals.		