

Submission Form 16 to the Otago Regional Council on consent applications

This is a Submission on (a) limited notified/publicly notified resource consent application/s pursuant to the Resource Management Act 1991.

Submitter Details:

(please print clearly)

Full Name/s: The Otago Fish and Game Council

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Private:

Mobile:

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I/ we wish to **SUPPORT / OPPOSE** / submit a **NEUTRAL** submission on (circle one) the application of:

Applicant's Name:

And/or Organisation: Oceana Gold (New Zealand) Limited

Application Number: RM24.184

Location: Macraes Gold Mine at or about NZTM 2000 E1400818 N4972370

Purpose: The Macraes Phase Four (MP4) site wide expansion of mining activities at the Macraes Gold Mine

The specific parts of the application/s that my submission relates to are: (Give details)

The whole application.

My/Our submission is (include: whether you support or oppose the application or specific parts of it, whether you are neutral regarding the application or specific parts of it and the reasons for your views).

Please see the attached submission.

I/We seek the following decision from the consent authority (*give precise details, including the general nature of any conditions sought*)

Please see the attached submission

I/we:

- ☒ ~~Wish to be heard in support of our/my submission~~
☐ Not wish to be heard in support of our/my submission

If others make a similar submission, I/we will consider presenting a joint case with them at a hearing.

- ☐ Yes
☒ ~~No~~

I, am/am not (choose one) a trade competitor* of the applicant (for the purposes of Section 308B of the Resource Management Act 1991).

**If trade competitor chosen, please complete the next statement, otherwise leave blank.*

I, am/am not (choose one) directly affected by an effect as a result of the proposed activity in the application that:

- a) adversely affects the environment; and
b) does not relate to trade competition or the effects of trade competition.

I, ~~do/do not~~ (choose one) wish to be involved in any pre-hearing meeting that may be held for this application.

I ~~do/do not~~ request* that the local authority delegates its functions, powers, and duties to hear and decide the application to 1 or more hearings commissioners who are not members of the local authority.

I have/have not served a copy of my submission on the applicant.



Signature/s of submitter/s
(or person authorised to sign on behalf of submitter/s)

1 May 2025

(Date)

Notes to the submitter

If you are making a submission to the Environmental Protection Authority, you should use [form 16B](#).

The closing date for serving submissions on the consent authority is the 20th working day after the date on which public or limited notification is given. If the application is subject to limited notification, the consent authority may adopt an earlier closing date for submissions once the consent authority receives responses from all affected persons.

You must serve a copy of your submission on the applicant as soon as is reasonably practicable after you have served your submission on the consent authority.

Privacy: Please note that submissions are public. Your name and submission will be included in papers that are available to the media and the public, including publication on the Council website. Your submission will only be used for the purpose of the notified resource consent process

If you are a trade competitor, your right to make a submission may be limited by the trade competition provisions in [Part 11A](#) of the Resource Management Act 1991.

If you make a request under [section 100A](#) of the Resource Management Act 1991, you must do so in writing no later than 5 working days after the close of submissions and you may be liable to meet or contribute to the costs of the hearings commissioner or commissioners.

You may not make a request under section 100A of the Resource Management Act 1991 in relation to an application for a coastal permit to carry out an activity that a regional coastal plan describes as a restricted coastal activity.

Please note that your submission (or part of your submission) may be struck out if the authority is satisfied that at least 1 of the following applies to the submission (or part of the submission):

- it is frivolous or vexatious:
- it discloses no reasonable or relevant case:
- it would be an abuse of the hearing process to allow the submission (or the part) to be taken further:
- it contains offensive language:
- it is supported only by material that purports to be independent expert evidence, but has been prepared by a person who is not independent or who does not have sufficient specialised knowledge or skill to give expert advice on the matter.

The address for service for the Consent Authority is:

Otago Regional Council, Private Bag 1954, Dunedin, 9054
or by email to submissions@orc.govt.nz



1 May 2025

Otago Regional Council

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Dunedin. 9054

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Submission on Application by OceanaGold – RM24.184

This submission is provided on behalf of the Otago Fish and Game Council (**Fish and Game**). For additional information please contact Ian Hadland using the details below.

Submitter Details

Submitter: The Otago Fish and Game Council

Contact person: Ian Hadland, Chief Executive

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Summary of relief sought

- [1]** Given the concerns raised in this submission, Fish and Game seeks the following relief:
- a. Water quality compliance limits should be established that are protective of aquatic ecosystems and sports fisheries. As noted by the Regional Council's consent officer, the current compliance limits set a low bar that allows for significant adverse effects.
 - b. Certainty regarding the implementation of all mitigation measures, including those that may require future consenting or extend beyond the 35-year maximum consent term permitted by the RMA.
 - c. A comprehensive and guaranteed financial mechanism should be established to ensure that all rehabilitation and mitigation activities will be properly funded and implemented over the extremely long timeframes involved (200+ years and into perpetuity).
 - d. In the face of dramatic uncertainty over timeframes that affect countless future generations, the precautionary principle should be applied when making decisions about long-term and perpetual effects.

- e. any decision must support the achievement of the freshwater visions in the Regional Policy Statement that require healthy freshwater ecosystems by 2040 in the Dunedin and Coast FMU and by 2050 in the Taieri FMU.
- [2] Where serious issues raised in this submission are found to be outside the scope of the Phase 4 application, Fish and Game encourages the Regional Council to engage with OceanaGold as necessary to resolve them in the interests of the public.

Background

- [3] Fish and Game is the statutory manager of sports fish and game bird resources within Otago. It holds functions and responsibilities set out in the Conservation Act 1987. The organisation's functions include managing, maintaining and enhancing the sports fish and game resources of Otago in the recreational interests of anglers and hunters; representing the interests and aspirations of anglers and hunters in the statutory planning process; and advocating the interests of the Council, including its interests in habitats. This submission has been developed in line with these functions.
- [4] As required by the Conservation Act 1987, Fish and Game has prepared a Sports Fish and Game Management Plan for Otago¹, which has guided the development of this submission. This document describes the sports fish and game bird resources in the region and outlines issues, objectives and policies for management over the period. The document may be useful for decision makers when considering this application.
- [5] It is important to raise that Fish and Game operates a hatchery at the Macraes Mine site in partnership with OceanaGold, using water pumped up to the mine site to raise fish before it is used in mine processes. This partnership has been productive for many years and the fish grown in the site support community events such as Take a Kid Fishing days. The fish are also used to create stocked fisheries where wild fishing opportunities are lacking, for example to serve the Dunedin population within the city itself at the Southern Reservoir, Tomahawk Lagoon or (slightly further out) at Sullivans Dam. This submission has been written without influence by Fish and Game's partnership and is restricted to the adverse effects on the environment which affect fisheries and licence holders.
- [6] Fish and Game submits in a neutral capacity, with the aim of highlighting key issues that we hope will be addressed in a decision.
- [7] The final piece of background that Fish and Game would like to raise is in relation to the freshwater visions for affected waterbodies. Appeals affecting LF-FW-01A and LF-VM-04 and

¹ Otago Fish and Game Council. 2015. *Sports Fish and Game Management Plan for Otago Fish and Game Region 2015 - 2025*. Dunedin: Otago Fish and Game Council.

LF-VM-05 in Otago Regional Policy Statement 2021 have been resolved and therefore these provisions, which set out visions to be achieved by set dates, should be considered for this application with substantial weight, as they are designed to give effect to the National Policy Statement for Freshwater Management 2020. Among the many achievements for these visions is that by 2040 in the Dunedin and Coast FMU and 2050 in the Taieri FMU, freshwater ecosystems must be healthy.² This is envisioned in the National Objectives Framework to be accompanied by a series of objectives, attributes and target attributes in regional plan to implement the objectives but, given the government's delay in notifying such plans, this is not currently available. Fish and Game instead submits that these consents should be considered against the question: how will this consent support the achievement of the relevant freshwater visions.

Sports Fish and Game Values

- [8] Macraes Mine is located in the headwaters of the Taieri, Waikouaiti and Waihemo Shag Rivers.
- [9] All three of these rivers host brown trout sports fisheries in their mainstems. These fisheries are supported by the habitat of the catchment, such as the quality and quantity of water from tributaries. Below is a summary of information on these three fisheries from the National Anglers Survey and the Otago Sports Fish and Game Management Plan 2015.

Fishery	Angler use³	Significance	Setting	Activity	Users
Taieri River Mainstem ⁴	9,579 – 27,523	A regionally important area for sports fish, game and for angling and hunting	Rural	Fly, spin, bait, hunt	Local, regional, national, junior, commercial
Waihemo Shag River	750 – 1,060	A regionally important trout fishery and habitat	Rural	Fly, spin, bait, hunt	Local, regional, junior
Waikouaiti River	630 – 2,630	This river sits on the border between a locally and regionally significant fishery on the basis of angler use. Its key attributes include: a fishery composed of both sea run and river resident trout; the ability to catch trophy fish; its proximity to a large centre of population (Dunedin) and a growing local population. It is one of a few sizeable and fishable East Coast	Rural	Fly, spin, bait, hunt	Local, junior

² See LF-FW-O1A(1)

³ Numbers cited are the minimum and maximum total use, including error, listed in the NAS between the 1994/1995 and 2021/2022 seasons.

⁴ The NAS breaks this mainstem reporting down further into 4 sections: above Kokonga, Kokonga to Outram, blow Outram and undefined river mainstem.

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rivers between Dunedin and Oamaru
is also a consideration (the other
three are the Waianakarua, Kakanui
and the Shag River).

- [10] Based on its knowledge as the regulator of sports fisheries, Fish and Game would narratively characterise the three fisheries in relation to the Phase 4 proposal as such:
- a. Taieri: a varied fishery which provides lowland fishery values that are used by a majority of people downstream of the Mare Burn. Usage is large for a lowland river and the proximity to the Dunedin population centre makes it more accessible to the public. People have reported being turned off by the level of pollution in the lower river.
 - b. Waikouaiti: description provided in table is accurate. Fish and Game staff have grown increasingly concerned in recent years with the degradation of water quality and the amount of algal growth that has been observed during summer.
 - c. Waihemo Shag: Similar characteristics to the Waikouaiti although there are fewer reports of water quality concerns by anglers. It is widely considered to be gravel deficient due to excessive historic gravel extraction.
- [11] In all catchments, Fish and Game does not expect the range of sports fish to extend far into the smaller tributaries close to the mine site. Sports fish will be present in the main stems of each of the catchments (including the North Branch of the Waikouaiti River) and a short way up the larger tributaries – the Mare Burn and Deepdell Creek. This is broadly supported by the ecological information presented by the applicant.
- [12] As a result, the application's main impact on sports fisheries will be through the discharge of contaminants and flow on ecological effects which may affect trout populations. In the Taieri and Waikouaiti particularly, these are likely to combine with other water quality issues to create cumulative effects.
- [13] Fish and Game anticipates little impact on game birds. They will be impacted by loss of habitat at mine site where vegetation and wetlands are removed. This will mainly affect paradise shelduck / pūtangitangi (*Tadorna variegata*) as few other waterfowl will range into the highland headwaters. As a common species, the amount of habitat supporting paradise shelduck that may be lost is not a major concern to Fish and Game.

Impacts on sports fisheries

- [14] Fish and Game understands that the nature of the discharges of contaminants under Phase 4 is that they will continue largely as they have over the life of the mine until its closure, then

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ramp up over long to very long timeframes as the mine pits fill and become lakes, increasing their seepage loss and, for some, overflowing into water bodies.

- [15] Fish and Game understands that the Notification Report Author and the applicant are in broad agreement about the adverse effects of the discharge on aquatic life and ecosystems. However, the Notification Report Author helpfully notes some substantial caveats to this in her report:⁵

“I would qualify this conclusion by reinforcing that the effects on aquatic ecology rely on future water quality being as predicted i.e. that contaminants generally remain below relevant water quality guidelines that are protective of ecological health. This future water quality is as predicted by models, which assumed that a number of important mitigation measures are implemented, particularly in the NBWR catchment. As noted in previous sections, some of these mitigation measures are not in place, may require additional resource consents to implement, and would require ongoing management to verify that they are as effective as expected. This introduces some uncertainty. The Applicant has stated that they will return seepage water to the mine water management system as required to remain within the existing compliance limits. Collecting and recycling mine impacted water is a sensible action; however, only ensuring that water quality remains below existing compliance limits is a very low bar, as these limits allow for significant adverse effects.” (my emphasis added)

- [16] Fish and Game submits that the Notification Report Author’s caveats show clear issues that should be resolved in a decision, as they will be determining factors in the mine’s adverse effects in Phase 4 and into the next centuries.
- [17] We understand that there may be complicated scope issues with these issues as they will be influenced to some degree by existing consents. We raise the issues plainly in this submission and trust that the decision will appropriately deal with the question of scope.
- [18] Where serious issues raised here are found to be outside the scope of the Phase 4 application, we encourage the Regional Council to engage with OceanaGold as necessary to resolve them in the interests of the public.
- [19] In the remainder of this submission, Fish and Game will present a short description of issues related to each of the Notification Report Author’s caveats.
- a. A reliance on monitoring: over the life of Phase 4 and into the future, someone will need to be present to ensure that the modelled water quality outcomes and expected discharge rates hold true and action will need to be taken if they do not. Given the timeframes involved are extremely long – 200+ years in some cases – the entity which

⁵ Notification report section 9.8.3, pg 85.

does this will need to be exceptionally well funded, both to be present throughout that timeframe and to step in with what could be expensive remedial work as needed.

- b. Future mitigation is required, some of which requires future consenting: the Notification Report Author states that:⁶

“The WGA peer review stated that through the modelling process it became clear that the discharge of water in areas of the NBWR catchment impacted by mining would lead to unacceptable downstream water quality outcomes.

By implementing a selected range of mitigation measures within the catchment (as in the mitigation scenario), the risk of compliance exceedance is significantly reduced with concentrations of sulphate, Nitrate N, Ammoniacal N and copper below the stated compliance limits. Elevated arsenic at compliance location NB03 is a result of the Golden Bar pit spill and could be managed by controlled discharge (during high flows) and/or treatment (e.g. dosing the pit lake with Ferric Chloride). As in the Shag River catchment, modelled concentrations of iron are primarily a result of the assumed basecase water quality and modelled exceedances of iron are likely conservative and significantly overstated. Ryder states that for mining and long-term scenarios, virtually all modelled contaminants at all surface water compliance sites meet the ANZ default guidelines for 95% species protection. Copper is modelled to exceed the ANZG 95% DGV at NBWRRF and NB03 in the long-term phase even in the selected mitigation scenario.”

In addition to this, in section 8.4 the Notification Report Author describes some of these activities and notes that several “... are not expected to occur for more than 35 years i.e. outside the maximum term allowable by the RMA.”

On pg 82 she provides her opinion that:

“... limited weight should be given to the ‘selected mitigation’ scenario in the NBWR catchment, because some of the mitigation measures would require authorisation by additional resource consents and the efficacy of, for example, the passive treatment systems, would require trials or further feasibility studies. The Applicant states that until the mitigation measures are in place they will pump seepage back to pits to ensure compliance with existing water quality compliance criteria. This is not the same as saying they will pump water back to ensure compliance with guidelines protective of good water quality or ecological health. Therefore, until the mitigations are in place

⁶ Notification report section 9.7.1, pg 79.

I consider that there is potential for more than minor adverse effects on water quality in the NBWR Catchment.

From this, Fish and Game understands that the Phase 4 activities will result in unacceptable water quality outcomes in the NBWR and several of the mitigations required to avoid this cannot be guaranteed in a present-day decision as their term would exceed 35 years or require further trials.

For the NBWR, the alternative of pumping water indefinitely seems equally uncertain, as it would require constant expenditure over many hundreds of years or more.

In the face of unacceptable environmental impacts, the public deserves certainty that the required actions will take place.

- c. Existing compliance limits set a low bar that allow for significant adverse effects: The Notification Report Author on pg 81 asserts that, in relation to water quality,

“Compliance with existing consent limits does not speak to the magnitude of effects and is simply an indication that the numerical thresholds that apply to other consents affecting the catchments can be complied with. In fact, the current compliance limits provide for significant adverse effects.”

This sentiment is repeated in the Notification Report Author’s quote the beginning of this submission’s paragraph 15.

It’s not clear to Fish and Game exactly what the significant adverse effect that is being referred to is; however, given the conclusion it is worrying. The above statement was made in relation to water quality, so if that has flow on effects for aquatic life, then Fish and Game submits that Resource Management Act section 107 should be a consideration. We note that the Notification Report Author characterises the adverse effects on aquatic life in the NBWR as more than minor but does not give an indication of the scale above the ‘minor’ mark. Significant adverse effects on aquatic life is one outcome that could be inferred from her statement.

This discussion also needs to be cognisant of the mine’s very poor compliance record for adhering to water quality limits in recent years. The Notification Report contains a statement from Principal Compliance Specialist Rachael Brennan:⁷

“... There were 37 exceedances of water quality limits at 11 monitoring sites during the past 5 years. Of these 13 were significant exceedances attributed to current mining operations. The exceedances were investigated, and the source identified, with additional monitoring and mitigation undertaken by Oceana Gold. The results of recent monitoring show an improvement, with a

⁷ Notification report section 7.3, pg 47 & 48.

couple of sites still showing moderate exceedances of limits but reducing. Oceana Gold continues regular dialogue with the Otago Regional Council to ensure progress toward consent compliance continues.”

Fish and Game is not confident that simply relying on existing compliance limits which are not currently being met and may allow for significant adverse effects will assist to achieve the healthy ecosystem aspects of freshwater visions for the Taieri and Dunedin and Coast FMUs. It may be that stricter consent limits are required, alongside a stricter compliance regime.

- d. The rehabilitation timeframes are incomprehensibly long and difficult to manage with certainty: The rehabilitation plan for the mine extends many hundreds of years and into perpetuity. Each of the caveat related issues raised so far interact with this fundamental question: who will guarantee responsibility for the rehabilitation work? Modelling must be verified, pumping must be undertaken, compliance limits met and, if something goes wrong, remedial action must be taken. This must all occur in the context of unpredictable change across timeframes that span dozens of generations and into perpetuity.

In so many cases around the world and in New Zealand, the public has ended up taking on the burden of rehabilitation of mining sites because this process has gone wrong. It is critical that this does not happen in this case.

It is also important to consider geotechnical stability through this lens. Being a mine in the headwaters of three large catchments that holds contaminated water in dams, the consequences of dam failure are extremely serious. Fish and Game are not geotechnical experts but to us a laypeople, the task of maintaining pit stability in an earthquake prone country into perpetuity seems daunting and costly. Similarly, the Regional Council’s geotechnical reviewer questioned the practicality of this, as reported by the Notification Report Author:⁸

“Generally, there is a risk of instability in pits post-closure, and the proposal to mitigate this risk via exclusion zones to ensure FoS of 1.5 outside the exclusion zone is considered reasonable from a geotechnical perspective, but Mr Macdiarmid notes that the practicalities of maintaining this in perpetuity should be considered by others.”

When considering the long term and very long term adverse effects of this application and the cumulative impacts of the mine as a whole, Fish and Game submits that the decision maker should be very certain that there is an extremely robust mechanism to

⁸ Notification report section 9.4.2, pg 59.

ensure any proposed rehabilitation work – including future adaptive management actions which are not now currently known – will actually be undertaken.

With that said, Fish and Game is not clear exactly how this could be achieved on a project which spans hundreds of years and into perpetuity, affecting countless future generations. In the face of such dramatic uncertainty, it may be that adopting the precautionary principle would be a helpful place to begin.

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