

Resource Consent submission

To: The Chief Executive
Environment Southland
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Date 02/09/2024 14:34
Online reference number RC240902951

Full name of submitter Kathryn Gay Munro and Ronald Ewart Munro
Postal address Section 53
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Applicant details

Name of applicant Te Rūnanga o Awarua, Department of Conservation Te Papa
Atawhai and Environment Southland
Activity location Section 53
Application number APP-20242456

Submission details

My submission relates to the whole application Yes
Submission uploaded Waituna Lagoon Opening Consent APP-20242456 -
Submission from RE and KG Munro.pdf (421 kb)
**I am a trade competitor of the applicant (for the purposes of
section 308B of the Resource Management Act 1991)** No

For now
& our future



Outcome sought

I wish Environment Southland to make the following decision

To oppose the application.

Why I wish Environment Southland to make this decision

We would ask for the consent to be 10 years only considering there are so many unknowns regarding the dynamics of the Waituna Lagoon and the impacts of climate change.

We would ask for the action of an annual winter opening to 1/ flush high nutrients from the lagoon while inputs of these are still high (especially N) and also considering the historic levels of P in the lagoon bed. This is not a given under the current consent application. (This should be for at least 5 years.)

2/ allow for annual fish passage, especially for kanakana and inanga.

3/ better ensure a closed and healthier lagoon going into summer to help maintain the Ruppia cover.

4/ allow for ongoing access via the Waghorn Bridge to the Waituna Wetlands lookout and walking track.

Hearing details

I wish to be heard in support of my submission Yes

I would consider presenting a joint case if others make a similar submission No

I wish to be involved in any pre-hearing meeting that may be held for this application Yes

Confirmation

I have served a copy of my submission on the applicant and I confirm all of the above information is correct

For **now**
& **our future**



Submission from RE & KG Munro, residential address: **Section 53**

Our Submission Summary:

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1/ flush high nutrients from the lagoon while inputs of these are still high (especially N) and also considering the historic levels of P in the lagoon bed. This is not a given under the current consent application. (This should be for at least 5 years.)

2/ allow for annual fish passage, especially for kanakana and inanga.

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4/ allow for ongoing access via the Waghorn Bridge to the Waituna Wetlands lookout and walking track.

Our submission to the Resource Consent Application for the Periodic opening of Waituna Lagoon to maintain and restore ecological health and cultural values of the lagoon ecosystem by Te Rūnanga o Awarua, Department of Conservation Te Papa Atawhai and Environment Southland is asking for the consent to be declined in it's current form due to our concern for the health (mauri) of the lagoon ecosystem.

Section 5.2.3, Pg 48 – “Overall, the Science Advisory Report concludes that TN, TP and chl-a monitoring indicates Waituna Lagoon remains under threat from eutrophication and catchment action remains essential to reduce nutrient loads.”

Following good actions by landowners focusing on point source pollution with improved effluent systems following the lagoon crisis of 2011, ongoing landuse intensification in the catchment seems to have meant continued nutrient issues in the waterways feeding the lagoon. There are further on farm actions that could be taken to improve this situation and hopefully these will continue to be actioned to bring the needed reduction to especially the N load in winter. Meanwhile, the increase of N load in the waterways through the winter needs to be dealt with to avoid the danger of algal blooms the following season. (Prior to the disastrous situation this past summer, the spring before there was a warning of blue green algae at the lagoon as well.)

Phosphorous loads in the Waituna Stream are lower, however the presence of historical P in the lagoon sediment from 60 years of super phosphate application in the catchment, since the major government development of the 1960's, is a problem. P was defined as the limiting factor, however it will most likely be decades of flushing the lagoon by opening to the sea to remove this influence.

Considering the above nutrient issues, an annual winter opening of the lagoon to flush out nutrients seems to be consistent with the Science Advisory Report to avoid eutrophication, until it is clear that inputs to the lagoon, plus historic loadings are reduced.

Section 5.2.4, p48 From the Science Advisory Report - "The ecosystem health of Waituna Lagoon is supported by submerged native aquatic plants known as Ruppia (two species: R. megacarpa and R. polycarpa), which are foundational species that help regulate water quality. However, the Ruppia-dominated plant community is vulnerable to a range of stressors including nutrient enrichment, decreased water clarity, prolonged high salinity and frequent lagoon opening events."

Ruppia has been defined as a keystone species and the focus of studies for over a decade. It has been well shown that the damage to the Ruppia population in the lagoon is caused by the water body being open through the summer. However, this past summer has shown the danger of the annually closed lagoon leading to algal blooms while nutrient levels are high, and these have a severe impact on the Ruppia as well. The reference to frequent lagoon openings is misleading as it is known that winter openings generally close before the period of damage occurs.

Section 5.2.8, p55 From the Science Advisory Report – "both inanga and kanakana/lamprey abundance in Waituna Creek tends to increase with the number of days that the lagoon is open to the sea – either during the spring for inanga or winter-spring period for lamprey/kanakana."

Acknowledging that these two species are taonga for iwi, along with their being an important part of Waituna's biodiversity, an annual winter opening to the sea enhances their population. Also, that "Research found that inanga migrating upstream from the lagoon supported 60%80% of longfin eel food resource."

Section 5.2.9 Climate Change

"The Impacts and Implications of Climate Change on Waituna Lagoon report states that projected increases in rainfall, freshwater inflows, flood events and inundation of surrounding land over the next several decades are likely to contribute to lower lagoon-bed light levels and higher levels of nutrients and sediment entering the lagoon."

Over the last few years, we have seen the impact of droughts and floods on the lagoon. The particularly dry year in 2022 led to high Chl a levels late April, while last year high rainfall events in September lead to very high lake levels and potentially resulted in the algal bloom in December. The other issue with high lake levels resulting from flooding, especially over the summer and autumn months is the reduced light levels impacting Ruppia health. Although winter openings may not alleviate this problem, the fact that nutrients have been flushed to some degree at least reduces that stressor for the system.

Values Chart, pg 76/77

From this chart the recommended opening height is a maximum of 2.5m. The two reasons for this level are to reduce summer openings and create inundation of edge vegetation.

The former can be more assured in the short term by an annual winter opening to reduce nutrients in the lagoon. The latter (inundation of lagoon edge) has historically happened under the past opening regime, especially through the winter months. The extension of oi oi into the

lagoon bed may have been the result of periods of summer openings, so the avoidance of those is agreed with. However, there are species that have established in those areas that could be lost if higher lake levels were maintained (eg, threatened species *Urtica perconfusa*)

A maximum height of 2.3m (which was originally discussed) seems to fulfill the Values Chart.

From the Consent Application: "The objective of the opening regime is to maintain and restore the ecological health and cultural values of the lagoon ecosystem. The proposed opening regime seeks to halt decline and improve water quality, by opening when it is necessary to address poor water quality as a result of the cumulative adverse effects of contaminant discharges and land use activities within the catchment. Lagoon opening is a key tool to disrupt algal blooms and other poor water quality events. The application also seeks to reduce the frequency of openings to protect the lagoon ecosystem by opening at higher threshold levels than consented previously."

Our objection is to the consent conditions of a maximum level of 2.5m and not necessarily an annual winter opening (while nutrient levels remain high). Also, we object to the term of the consent being 20 years, when there are so many unknowns still (10 years is our preference, with an annual winter opening for the first 5 years). The other consideration is access to the recreational gem of Waituna Wetlands for locals and tourists, with its lookout and walkway, which could be limited (especially over winter months, at least 6 weeks these past two years) by proposed higher water levels.

The above statement from the consent application is honourable however we believe evidence shows these outcomes can be achieved without the high-water levels set and acknowledging that while nutrient levels remain high an annual winter opening is needed to ensure the mauri of the lagoon. It is not the annual openings but the summer openings that need to be curbed to ensure this outcome - "The mauri of water provides for te hauora o te taiao (health and mauri of the environment), te hauora o te wai (health and mauri of the waterbody) and te hauora o te tangata (health and mauri of the people.)"

K. G. Munro
O (Gay Munro)

2/09/24

RE Munro
(Ron Munro)

2.9.24