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**MARLBOROUGH  
DISTRICT COUNCIL**



9 June 2022

Record No: 22109769  
File Ref: D050-001-E01  
Ask For: Nicole Chauval

## **Notice of Committee Meeting – Wednesday 15 June 2022**

A meeting of the Environment Committee will be held in the Council Chambers, 15 Seymour Street, Blenheim on Wednesday, **15 June 2022 commencing at 9.00 am.**

### **BUSINESS**

As per Agenda attached.

MARK WHEELER  
**CHIEF EXECUTIVE**



**Meeting of the ENVIRONMENT COMMITTEE  
to be held in the Council Chambers, District Administration Building, Seymour Street,  
on WEDNESDAY, 15 JUNE 2022 commencing at 9.00 am**

**Committee**

Mayor J C Leggett (Chairperson)  
Clr D D Oddie (Deputy)  
Clr G A Hope (Deputy)  
Clr J A Arbuckle  
Clr J D N Croad  
Clr B A Faulls  
Clr T P Sowman  
Iwi Representative (to be advised)  
Mr E R Beech (Rural representative)

**Departmental Head**

Mr H Versteegh (Environmental Science and Policy Group Manager)  
and Ms G Ferguson (Consents and Compliance Group Manager)

**Staff**

Nicole Chauval (Committee Secretary)

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**In Public**

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## **1. Apologies**

An apology from Cllr M A Peters has been received.

## **2. Declaration of Interests**

Members are reminded of the need to be vigilant to stand aside from decision making when a conflict arises between their role as a member and any private or other external interest they might have.

### 3. Resource Hearing Sub-Committee and or Commissioner Decisions

(also refer to separate attachment)

#### 1. Resource Hearing Sub-Committee Hearings held on 16 February 2022 (U210437)

A full copy of the Decision is **separately attached** to the Agenda.

A summary of this Decision follows:

#### Schedule of Resource Hearing Sub-Committee Decisions

Pages	Date	Subject	Decision
1 - 58	16 February 2022	Tasman Pine Forests Limited - Application for Resource Consent - Land Use (Land Disturbance) - 712 Kenepuru Road, Mahau Sound (U210437)	<b>GRANTED</b> Land Use (Land Disturbance) to undertake earthworks to facilitate harvesting including upgrading 4,900 metres of existing forestry road, reinstatement of 850 metres of existing track, upgrading of 10 existing landings, construction of up to 4 new mini pads, and construction of 260 metres of forestry track (in accordance with schedule A, attachment 1 of this consent); To undertake maintenance of existing forestry infrastructure (in accordance with Schedule A, attachment 1 of this consent); and to harvest approximately 94 hectares of plantation forest (in accordance with the Harvesting Phasing Map dated 28 February 2022, on the site legally described as Section 14 Block VI Linkwater Survey DIST, Section 8 and Section 39 Block VI Linkwater Survey District, Section 38 Block VI Linkwater Survey District, Part Section 4-5 Block VI Linkwater Survey District.

#### 2. Resource Hearing Commissioner Hearings held on 9 February 2022 (am) (U200673), 9 February 2022 (pm) (U200816), 23 February 2022 (U210362) and 15 March 2022 (U200493)

Full copies of the Decisions are **separately attached** to the Agenda.

A summary of these Decisions follows:

#### Schedule of Resource Hearing Commissioner Decisions

Pages	Date	Subject	Decision
59 - 68	9 February 2022	H J & M K MacDonald for the Te Iwingaro Trust - Application for Section 357B Objection to Costs - Water Permit - 65 Murrays Road, Rapaura (U200673)	<b>DISMISSED</b> Section 357B Objection to costs for resource consent application U200673.
69 - 78	9 February 2022	G Goodsir - Application for Section 357B Objection to Costs - Subdivision - 1193 Kaituna-Tuamarina Road, Blenheim (U200816)	<b>ACCEPTED in part</b> Section 357B Objection to costs for resource consent application U200816.
79 - 95	23 February 2022	Adele, Rachel and Rebecca Bissell as trustees of the Coolabah Family Trust - Application for Resource Consent - Subdivision (Allotment Creation) - 1730 Waihopai Valley Road, Waihopai Valley (U210362)	<b>GRANTED</b> Subdivision (Allotment Creation) to subdivide Lot 3 DP 469272 to create two rural allotments as a boundary adjustment with Lot 1 DP 368560: <ul style="list-style-type: none"><li>Proposed Lot 1 with an area of 10.4860 ha (to be amalgamated with Lot 1 DP 368560 6.66 ha), and</li><li>Proposed Lot 2 with an area of 24.9030 ha.</li></ul>
96 - 105	15 March 2022	Kuku Holdings Limited - Application for Section 357B Objection to Costs - Coastal Permit - Marine Farm site 8217, Tawhitinui Reach, Central Pelorus Sound (U200493)	<b>REFUSED</b> Section 357B Objection to costs for resource consent application U200493.

## 4. Ngāti Kurī, Te Rūnanga o Kaikōura Led Biosecurity programme

(Mayor) (Report prepared by Rāwiri Manawatu)

C230-001-N02

### Purpose of Report

1. To provide the Committee an update on the Jobs for Nature Predator Control Project being delivered by Ngāti Kurī in collaboration with the Marlborough District Council, Kaikōura District Council, Hurunui District Council, Environment Canterbury and the Department of Conservation.

### Executive Summary

2. Ngāti Kurī and the Marlborough District Council have a standing relationship with Ngāti Kurī and Ngāi Tahu within Council's southern territorial boundary to Pari Nui o Whiti (White Cliffs).
3. Council has supported and worked in collaboration with Ngāti Kurī to deliver the Te Tau Wairehu o Marokura Predator Control Project.
4. This collaboration includes support with representatives of the Council being present when required to promote the project alongside Ngāti Kurī, internally and externally. It also includes technical advice and support with communications with the Marlborough District in areas relevant to the project.

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### RECOMMENDATION

That the information be received.

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### Background/Context

5. Council has recognised the value of collaboration with Ngāti Kurī and biosecurity initiatives. These strategic priorities for Council and Ngāti Kurī directly align in this kaupapa/Project.
6. In 2020 the world came to an unprecedented stand still due to the then pandemic that we all know today as COVID-19. Aotearoa/New Zealand's economy was impacted which directly affected businesses across the country and more specifically the tourism industry.
7. Government recognised the impact on businesses and the flow on effect this would have on communities and employment across the tourism industry and announced the Jobs for Nature Projects fund to mitigate economic impact to communities and employment.
8. Ngāti Kurī formed the Ngāti Kurī Takiwā Collective (NKT) which was made up of representatives of the Marlborough District Council, Kaikōura District Council, Hurunui District Council, Environment Canterbury and the Department of Conservation.
9. The purpose of the collective was to align conservation projects that could be delivered across a large area and across districts that directly align with the strategic priorities of all partners involved.
10. The Te Tau Wairehu o Marokura Predator Control Project was prioritised by the collective as the first project to seek funding through the Jobs for Nature initiative.
11. Ngāti Kurī became the applicant and deliverer of the Te Tau Wairehu o Marokura Project supported by all partners in the collective and has been running successfully since 2021.

## Presentation

A presentation (20 minutes) will be given by Ngāti Kurī, Te Rūnanga o Kaikōura Ltd to update the Marlborough District Council of progress to date.

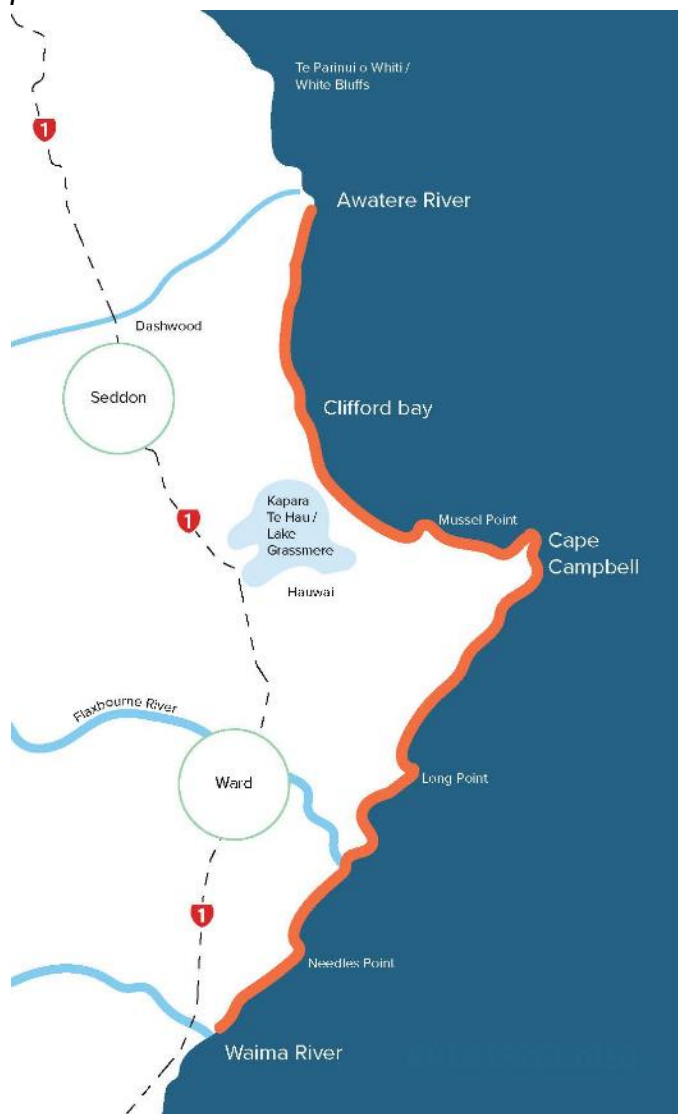
## Attachment

Attachment 1 – Te Tau Wairehu o Marokura Pest Management Project Area

page [5]

Author	Rawinia Thomas, Ngāti Kurī
Authoriser	Alan Johnson, Environmental Science & Monitoring Manager

Attachment 1



## Pest Management Notice

### Te Tau Wairehu o Marokura Pest Management Project

Pest trapping will begin in July 2022 along the coastline from the Waima / Ure River to the Awatere River. We will be placing DOC 200 trap boxes and SA2 KAT traps along our coastline targeting pests.

Please be mindful of young children and household pets as these traps can be dangerous.

*Thank you for your cooperation.*

#PESTFREE2050

Contact information: Te Rūnanga o Kaikōura Ltd  
Tel: 03 319 3383 | Email: rawinia.thomas@ngaitahu.iwi.nz  
f: Te Tau Wairehu o Marokura predator control project



## 5. 2022 Progress Update on Gravel Bed Rivers (GBR) Project Research Findings

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(Clr Hope) (Report prepared by Peter Davidson)

E345-007-001

### Purpose of Report

1. To provide an update to the Committee on research results from the national Gravel Bed Rivers project investigating the hydraulic connection between braided gravel rivers and alluvial aquifers.

### Executive Summary

2. The prime reasons for the ongoing decline in Wairau Aquifer well levels is less Wairau River water available for recharge and a reduction in the capacity of the natural pathways to move water from the river into the aquifer. This is compounded by demand in some drier seasons.
3. These are the only influences that have not become static over time and explain the ongoing, unidirectional declining trend in Wairau Aquifer levels observed since 1974 at the MDC Condors monitoring well. The effects of processes like land drainage and river training are likely to have peaked decades ago.
4. Wairau River flows are lower now due to less rainfall since 1961, but with some seasonal decline from consented abstraction.
5. Wairau Aquifer recharge is relatively constant through the year, except at low Wairau River flows of below approximately 20 m<sup>3</sup>/second (cumecs) at State Highway 1 when the rate of recharge drops off significantly. Over time the number of days when Wairau River flow at State Highway 1 drops below 20 cumecs has increased significantly, leading to lower rates of Wairau Aquifer recharge.
6. Wairau Aquifer recharge is related to riverbed morphology as well as climate. The transition from a natural multi-braided river to a single channel river as part of works to protect the adjoining Wairau Plain farms and settlements from flooding has reduced rates of Wairau Aquifer recharge.
7. Wairau Riverbed elevations have decreased since the late 1950's due to less natural sediment arriving from upstream in the catchment, and gravel quarrying for construction in the sensitive Wairau Aquifer recharge reach.
8. This process has been exacerbated by narrowing of the river channel. Narrowing the channel has promoted scouring along the armoured floodway margins due to floods downcutting in the current single Wairau River braid.
9. Cross sectional surveys show that average Wairau River water levels, and by implication riverbed sediments, have fallen by around one metre in the Wairau Aquifer recharge reach since the late 1950s and this process appears to be continuing. The magnitude of the decline varies depending on location, with larger declines further upstream in the Wairau River.
10. Wairau Aquifer recharge relies on a gradient to drive water away from the Wairau River. The decline in Wairau River water levels means that over time the gradient has reduced significantly and under low flows in some reaches, groundwater drains back from the aquifer to the Wairau River, reversing the recharge process.
11. While the Wairau Aquifer underlies the Wairau River everywhere in the recharge reach (Waihopai River confluence to State Highway 1), the localised exchange mechanism between the two water bodies will vary from location to location.
12. Within the GBR study area mid-way down the recharge reach, deep pools represent the exposed water table of the Wairau Aquifer, and no recharge occurs as there is no gradient exists to drive exchange with Wairau River channel water.
13. When the Wairau River channel is elevated above the Wairau Aquifer water table in the floodway, river water drains vertically downwards to the Wairau Aquifer and in the GBR study area this mechanism is associated with runs and riffles (as opposed to pools).



14. Localised recharge within the riverbed must then extend southwards to replenish the remainder of the Wairau Aquifer and the dominant transport mechanism is lateral (sideways) movement in the shallow, highly permeable gravels closest to the surface. Deeper gravels beneath the river are much less permeable and cannot transmit as much recharge water vertically or horizontally.
15. Due to the decline in Wairau River water and bed levels since the late 1950's, these highly permeable gravels are becoming thinner. The saturated thickness of these gravels is now only four to five metres thick. Thinner gravels have less ability to transfer water southwards away from the river into the wider aquifer and less water storage capacity.
16. The thickness of the river gravels is thought to be the main limiting factor for groundwater recharge rates. Because the river gravels have been thinned, for the equivalent flow conditions, the Wairau River cannot physically lose as much water to the wider Wairau Aquifer now as has occurred historically. This is because the ability of the gravels river to transfer water, or transmissivity, had been reduced by this decrease in their thickness.
17. The thickness of the river gravels, and floodway width are both important for maintaining water storage and groundwater recharge. Total available storage places an upper limit on antecedent storage capacity in the river gravels.
18. Because the volume of gravel in the riverbed has decreased through time, the volume of water that can potentially be stored in those gravels has also decreased. The riverbed gravels can be seen as a middleman, passing on water from the river to the aquifer, the bigger the middleman, the more that can be passed on.
19. The benefit of a river fresh to the Wairau Aquifer depends on the volume of antecedent storage contained in the riverbed gravels. If there is ample antecedent storage, a recharge event can move water further away from the river. If storage is low, a recharge event first has to replenish storage near the river before the lens can extend further away. Therefore, the benefit of a recharge event is governed by the volume of gravel available for that storage.
20. Having established a conceptual model of how the river-groundwater system work, the river-groundwater system will be modelled more accurately than previously. A model will be used to test the sensitivity of the river-groundwater water balance to riverbed elevation, scouring, and floodway width. The results will be used as a basis for a cost-benefit analysis to see how changes to current river management would impact the local economy.
21. The weather, climate and river morphology effects are additive and act concurrently. Currently observed trends are likely to continue in the future, compounded by higher demand and more variable Wairau River flows due to predicted climate extremes.
22. The decline in Wairau Aquifer levels is consistent with widespread deepening of wells over the past 35 years at least. Deepening wells improves individuals access to groundwater but will not prevent aquifer fed springs from drying up as they rely on shallow groundwater breaking the surface for their existence.
23. The catchment drivers behind the decrease in Wairau Riverbed/water levels will be explained in the presentation.

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## **RECOMMENDATION**

1. **That the report be received.**
  2. **That the river-groundwater model be further developed and tested to enable and inform future water management.**
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## Background/Context

24. The Gravel Bed Rivers (GBR) Project is a national project investigating the hydrology of New Zealand braided rivers focused on how they exchange water with neighbouring alluvial gravel aquifers.
25. The project is mainly funded by central government through the Endeavour Fund, with annual contributions from the three Regional Councils with case studies in their areas which are: ECAN (Selwyn-Waikirikiriri), MDC (Wairau River) and HBRC (Ngaruroro River).
26. Research started in Oct 2019 and is scheduled to be completed in Sept 2024. A number of research organisations are involved from New Zealand and overseas. Coordinating the research for the Wairau River case study is Scott Wilson from Lincoln Agritech Ltd in Canterbury and Joe Hoyle from NIWA, based in Christchurch. Thomas Wohling from the Technical University of Dresden is also involved and will be using the knowledge and data to improve the existing Wairau Aquifer model.
27. The Wairau River is structurally different to the Selwyn-Waikirikiriri River and Ngaruroro Rivers making the lessons slightly different, however the development of each river is relevant given they evolve from the same alluvial river processes.
28. The morphological reasons for the declining Wairau Aquifer levels were the focus of research in Marlborough.

## Presentation

A short presentation will be given by Val Wadsworth (MDC) and Scott Wilson (Lincoln Agritech) (35 minutes).

Author	Peter Davidson, Environmental Scientist, Groundwater
Authoriser	Alan Johnson, Environmental Science & Monitoring Manager

## 6. 2022 MDC Groundwater Quantity State of the Environment (SoE) Report

(also refer separate report available on Council's website)

(Cllr Hope) (Report prepared by Peter Davidson)

E345-007-001

### Purpose of Report

1. To present the annual groundwater quantity state of the environment report entitled: *2022 MDC Groundwater Quantity State of the Environment (SoE) Report*.

### Executive Summary

2. The state and presence of trends varies significantly between aquifer systems reflecting differences in levels of consented abstraction, response to natural events (2016 Kaikoura earthquake), local boundary effects and differences in natural recharge rates or climate.
3. In terms of aquifer state, western areas of the Wairau Aquifer are low relative to the Wairau River channel which is the main recharge source. Riverlands Aquifer levels are defined as low because they approach MEP sea-level thresholds each summer due to high consented demand. Benmorven Aquifer levels have not recovered to the same extent as other Southern Valley Aquifer from high demand in the 1990s and its current state is low.
4. In contrast, levels of the Taylor River Fan Aquifer and most deep Southern Valleys Aquifers are high due to the Southern Valleys Irrigation Scheme (SVIS) reducing demand on local groundwater with their state classified as high. The state of all other aquifers systems monitoring by MDC as part of the SoE monitoring programme are rated normal.
5. In terms of aquifer trends, the decline in Wairau Aquifer levels continues across all FMU sectors but is affecting inland areas more than coastal areas. The trend is mimicked in the groundwater fed springs with a significant decline in Spring Creek flow since gauging began in 1996. Both trends are statistically significant.
6. The reasons for low Wairau Aquifer levels in the Recharge Sector are more complex with multiple drivers which are currently being investigated by the national Gravel Bed Rivers (GBR) project in conjunction with MDC hydrology staff. A detailed explanation of the latest findings from the GBR project will be provided to the Committee in two related reports.
7. As part of this SoE report Wairau River flow was found to be declining over time consistent with lower Wairau Aquifer levels being caused by lower Wairau Aquifer recharge rates. This trend is statistically significant.
8. Spring Creek flow at the Motorcamp recorder site has declined significantly since regular gauging started in 1996, mimicking the trend in the associated groundwater levels of the Wairau Aquifer. If the trend continues the belt of mid plains groundwater fed springs are predicted to recede as far east as the CBD area of Blenheim by about the year 2100. This trend is statistically significant.
9. Rarangi Shallow Aquifer (RSA) levels are showing a statistically significant increasing trend, but at a higher rate than sea-level rise, implying impeded aquifer drainage processes or higher recharge rates are responsible.
10. Coastal Riverlands Aquifer levels are declining due to high consented demand and decreasing recharge from the Wairau River. The largest decreasing rate of groundwater level is inland where most abstraction occurs with minor falls closer to the coastal saltwater boundary. This trend is statistically significant.
11. Riverlands Aquifer levels are approaching MEP cut-off elevations in most summer seasons and aquifer state was rated low. While unexercised consented demand exists, any increase in actual demand is expected to be unsustainable, especially near the coast.

12. The Riverlands Aquifer was the only FMU where verified, summed actual groundwater use was available in the preparation of this SoE report for comparing with groundwater level change. To allow for consents that are unmetered, or the data is not available, summed actual use was increased by a nominal 20%.
13. Waikakaho River gravel levels are showing a rising pattern over time. Deep Southern Valleys Aquifer levels show an apparent increasing trend reflecting rebound from high consented demand in the 1990s, following the introduction of SVIS. Groundwater levels for the MDC recorder site at Wairau Valley are stable with time.
14. Wairau River flow at Tuamarina/State Highway 1 has declined since 1960, but no trend was present for Wairau River flow at Dip Flat recorder station representing the upper catchment. This implies higher channel demand and/or less rainfall/runoff in middle/lower reaches of catchment.

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## **RECOMMENDATION**

**That the information be received.**

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### **Background/Context**

15. Groundwater is of paramount importance to the Wairau Plain. All human activities, the functioning of most natural systems and our day-to-day wellbeing all depend upon its continued existence.
16. The National Policy Statement for Freshwater (NPS FW) principle of Te Mana o Te Wai encapsulates broader obligations around freshwater for the Wairau.
17. Te Mana o te Wai is the fundamental concept that underpins the NPSFM. Essentially Te Mana o te Wai refers to the vital importance of water. When managing freshwater, it ensures the health and well-being of the water is protected and human health needs are provided for before enabling other uses of water. It expresses the special connection all New Zealanders have with freshwater. By protecting the health and well-being of our freshwater we protect the health and well-being of our people and environments.
18. Further, the NPS-FM 2020 introduces a hierarchy of obligations in Te Mana o te Wai that prioritises:
  - (a) first, the health and well-being of water bodies and freshwater ecosystems
  - (b) second, the health needs of people (such as drinking water)
  - (c) third, the ability of people and communities to provide for their social, economic, and cultural well-being, now and in the future.
19. The Wairau relies on groundwater for all drinking water, most crop irrigation water (except for part of the Southern Valleys Catchments serviced by SVIS) and for processing most of the New Zealand's wine crop. In terms of natural functions, groundwater sustains the baseflow of all Wairau Plain streams while maintaining the natural seawater interface at the Cloudy Bay coast in a safe position.
20. Without natural reservoirs of easily accessible groundwater; business, agriculture and simply existing on the Wairau Plain would be an uncertain proposition. It is the Wairau's greatest natural asset in terms of the value it adds to agricultural produce and ecological servicing, while providing for people's fundamental needs.
21. The continuing prosperity of the Wairau and its residents relies on using this groundwater sustainably. Limits have been set for all major aquifers/FMU's in the proposed Marlborough Environment Plan to provide certainty for water users and the environment.
22. All of Marlborough's aquifer systems are near full allocation or over allocated as prescribed in the Marlborough Environment Plan (MEP). This will constrain future growth on the Wairau as water is a

fundamental prerequisite for any human activities. There are expected to be efficiencies associated with urban water metering as demonstrated by Renwick public water supply.

23. The Marlborough Environment Plan limits reflect current hydrological knowledge which is constantly being refined as new information or fresh interpretations come to hand. However, MDC will not have a complete picture of the effect of current rates of consented abstraction until there is a full set of water accounts based on actual (metered) water use. In addition, MDC still don't have perfect hydrological knowledge.
24. Uncertainty around aquifer limits and cut-off thresholds can be expected until there is a final washup of the cumulative effects of consented groundwater abstraction based on actual use and to a lesser extent knowledge of FMU hydrology and consequences of climate change. This will have implications for the reliability of individual water permits.
25. Not all aquifers are in equilibrium with abstraction and recharge. The ongoing declining trend in Wairau Aquifer levels makes setting seasonal cut-offs for protecting groundwater during drought problematic as ultimately any elevation threshold set in the Marlborough Environment Plan will be transgressed.
26. State of the Environment monitoring identified the trend and tracks its rate over time. Alternative systems of governing use when the Wairau Aquifer is under stress are being developed and trialled using numerical model simulations.
27. The purpose of state of the environment reports is to assess the effectiveness of the Marlborough Environment Plan policy and rules. This is the science which identifies trends and aquifer state which MDC use for reviewing policy or rules. Each year MDC are required to produce SoE reports across the various science portfolios MDC manage.
28. The report is based on measurements from the MDC SoE monitoring network representing the state of all aquifers where there is significant consented demand on groundwater. In some cases, MDC monitoring sites represent areas which are not formally designated as a separate FMU in the Marlborough Environment Plan but recognise a gap in hydrological knowledge or a future issue.
29. The focus of SoE groundwater quantity reports is aquifer response to consented abstraction in isolation from natural drivers of aquifer behaviour including recharge, drainage, sea-level change, earthquakes, and climate variability. However, this has only been possible for the Riverlands Aquifer to date.
30. In this case the cumulative picture of FMU water use required the verification of 65 meters from 2016 to 2022. For the Wairau Aquifer where the summed daily actual use is being assembled involves of the order of 1500 water meters which is an intensive process.
31. With the benefit of very long hydrological and water quality records, MDC are now recognising side effects from historic modifications to the Wairau landscape over the last century of European settlement, particularly rivers. The most apparent consequences are associated with Wairau Plain flood control works to prevent flooding of settlements and allow intensive agriculture.
32. This shows the importance of collecting fundamental base data like rainfall, river flow and aquifer levels for long-term decision making.

## Presentation

A short presentation will be given by Peter Davidson (15 minutes).

## Attachment

*Attachment 1* – 2022 MDC Groundwater Quantity State of the Environment (SoE) Report (Report is available on Council's website via the following link <https://www.marlborough.govt.nz/your-council/meetings>)

Author	Peter Davidson, Environmental Scientist, Groundwater
Authoriser	Alan Johnson, Environmental Science & Monitoring Manager

## **7. Water Allocation Status – Wairau Aquifer FMU, Riverlands FMU and Wairau River FMU**

(CIR Oddie) (Report prepared by Glen Parker)

R450-018-04

### **Purpose of Report**

1. To provide an update on the allocation status of the Wairau Aquifer FMU, Riverlands FMU and the Wairau River FMU for the Committee.

### **Executive Summary**

2. The allocation status of these water resources has changed from over-allocated (Wairau Aquifer and Riverlands FMU's) or fully allocated (Wairau River FMU A Class) to under- allocated. This means that water from these resources is now available for the public to apply for.
3. The change in status of these resources is due to the application of reasonable demand calculations during the reconsenting process, surrender of portions or all of existing water permits, or expiring (and not being re-applied for) water permits.

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### **RECOMMENDATION**

**That the information be received.**

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### **Background/Context**

4. The Proposed Marlborough Environment Plan (pMEP) was publicly notified on the 6 June 2016 and effectively changed the water allocation model for all water resources in Marlborough. While consideration of the objectives and policies of the operative Wairau/Awatere Resource Management Plan (the Plan) still had to be taken into consideration, the allocation volumes and new boundaries of the water resources specified in the pMEP, came into immediate effect.
5. The pMEP brought in some significant changes in the water allocation area including:
  - Water resources are now called Freshwater Management Units;
  - The aquifer under the Riverlands area was separated off from the Wairau Aquifer and is now called the Riverlands FMU. This water resource now has its own allocation;
  - Allocations from aquifers are now specified as yearly volumes (as opposed to daily volumes for river allocations);
  - All of the aquifers, i.e. the Wairau Aquifer FMU, the Riverlands FMU, the Benmorven FMU, the Brancott FMU and the Omaka FMU, except the Springlands FMU, were considered to be over-allocated;
  - The Wairau River FMU now has A, B and C class allocations, where there used to be just B and C classes under the Plan.
6. Prohibited activity rules in the pMEP mean that no-one can apply for a new allocation from an over-allocated water resource, so this has either restricted development or has made it harder to achieve as applicants have had to seek alternative sources of water.
7. To eliminate over-allocation in these water resources, the pMEP provides objectives and policies which guide how the reconsenting process of existing water permits is to proceed. The main aim of

these objectives and policies is to reduce an applicant's take down to a reasonable demand given the intended use.

8. In the existing Plan, allocation of water was based on standard set rates, i.e. 22 cubic metres per hectare per day for grapes and 50 cubic metres per hectare per day for pasture. These set rates did not take into account differing soil types or rainfall levels at each individual site so in most situations (particularly in the heavy soils in the Lower Wairau plains) the allocation rate exceeded what was actually required. In some situations, the standard set rate was insufficient especially on free draining sandy soils.
9. The pMEP requires "reasonable demand" model be used to establish water use for a particular site. The most common model used in Marlborough is the Irricalc from Lincoln Environmental, which has been used since 2015.
10. Using Irricalc, the over-allocation has been steadily reducing since 2016. This along with expired, and surrendered portions of water takes have resolved the overallocation of the Wairau Aquifer FMU.
11. Further allocation reductions in these water resources are expected as consent holders apply for replacement water permits. There are still a number existing water permits that were allocated at pasture and cropping rates but have now converted to vines. Compliance has an active programme to address change in crop type from consented use. As these water permits are reconsented it is expected that more water will come back into the system.
12. Over-allocation has also been resolved in the Riverlands FMU and A Class Wairau River FMU water is available so further developments in the Wairau Valley is possible.
13. Once over-allocation in an FMU is resolved, applications for water takes from these FMU's will be accepted, applications are processed on a first in first served basis. Allocated volumes are not static, on any day the allocated volume changes with surrender, expiries, and granted water take permits.
14. When receiving and processing a water take application, the processing officer will not grant water that would result in over allocation of the FMU. Localised impacts of any water take application are also considered, including impacts on the aquifer and saltwater intrusion.

### Next steps

15. To assist applicants Council is developing a webpage to display FMU allocation status at the time of publishing, with regular updates. As a result of applications in processing, expiries and surrenders FMU allocation status will frequently change.
16. Council's Compliance team will continue to resolve non-compliance where crop type has changed without the necessary permits and pursue surrenders and lapse of water take permit to improve the availability of water in the region.

Author	Glen Parker, Lead Senior Environmental Planner
Authoriser	Anna Davidson, Manager Resource Consents

## 8. Recreational Water Quality Report 2021-2022

(also refer separate report available on Council's website)

(Clr Hope) (Report prepared by Steffi Henkel)

E370-007-001

### Purpose of Report

1. To present the annual Recreational Water Quality Report.

### Executive Summary

2. Recreational water quality at eight beaches and eight river swimming spots was monitored during the summer months of 2021/2022. Weekly samples were analysed for indicator bacteria concentrations to assess the health risk to swimmers.
3. The majority of samples taken had bacteria concentrations that indicated low health risks. At three of the sites, all samples had bacteria levels below unsafe concentrations for swimmers. At all other sites, at least one sample had unsafe bacteria concentration. However, these samples were generally taken during or shortly after rainfall events.
4. Using monitoring data from the last five summer seasons, sites were given Suitability for Contact Recreation Grades. Most sites were generally suitable for contact recreation with grades of "Fair" (7 sites) and "Good" (3 sites), but four sites were graded "Poor" or "Very Poor".
5. The state of river swimming sites was also assessed according to the National Policy Statement for Freshwater Management. The state of three river sites is "Fair" and one site has a state of "Good". Three river sites have a state of "Poor", which is below the National Bottom Line and Council is required to improve water quality. One of these sites has already improved, which should be reflected in a better grade in the coming years. At the other sites, additional monitoring to find the causes of poor water quality and improvement actions as part of the Te Hoiere Catchment Restoration Project are aimed at reducing bacteria concentrations.
6. Assessments of changes over time, showed notable improvement for three monitoring sites, while increasing bacteria levels were observed at two swimming spots.

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### RECOMMENDATION

That the report be received.

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### Background/Context

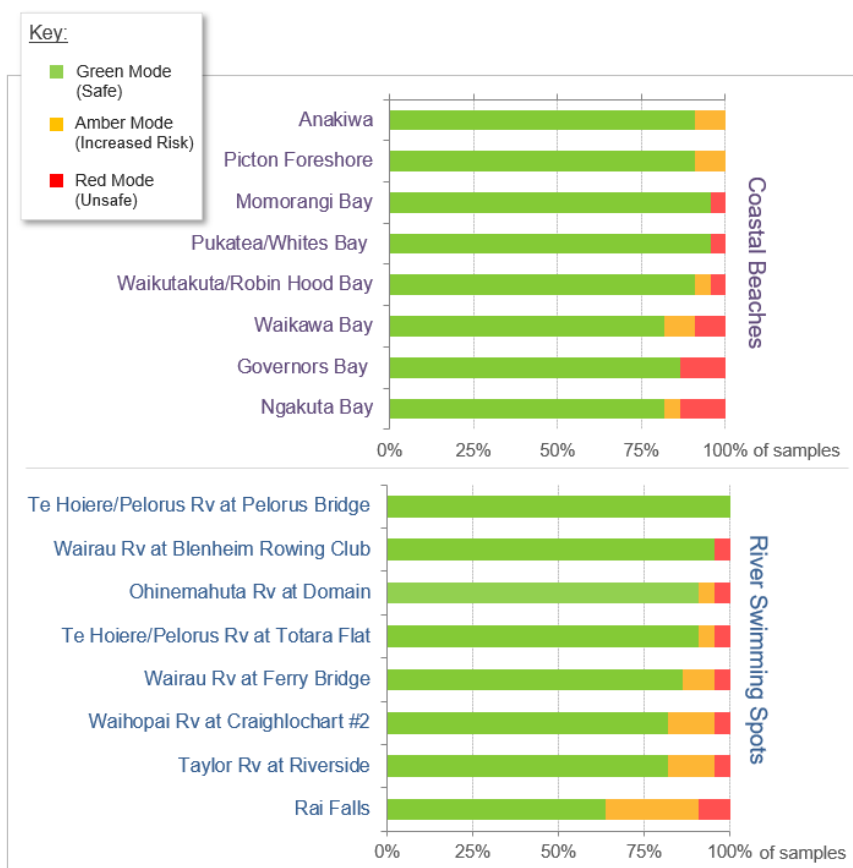
7. Swimming at one of the regions beaches or river swimming spots is an important part of the summer for many people. Although water quality is generally good, on rare occasions water born pathogens can make swimmers sick.
8. To determine the health risk to swimmers, Council monitors the most popular beaches and river swimming spots on a weekly basis from the beginning of November until the end of March.
9. In 2003 the Ministry for the Environment and the Ministry of Health released a document that allows assessment of the health risk to swimmers using the concentration of indicator bacteria. The document includes guideline levels for bacteria concentrations in individual samples. This allows the results to be categorised into one of three Modes representing levels of health risk to swimmers.
10. Individual sampling results only provide information about the recreational water quality at the date and time a sample was taken. However, this is not sufficient to allow decisions on whether water quality is generally safe for swimming. To provide information about the general suitability of water quality for swimming, data over several summers is combined to obtain SFR Grades.



11. The National Policy Statement for Freshwater Management contains limits for river swimming sites that are closely linked to the SFR Grades of the 2003 guidelines.

## Assessment/Analysis

12. The assessment results for the individual samples taken during the 2021/22 summer season are shown in **Figure 1**. With the exception of the Rai River at Rai Falls, more than 80% of samples taken from each site had indicator bacteria concentrations in the Green Mode, which is considered safe for swimming.



**Figure 1: Percentage of weekly samples taken during the 2021/22 summer season within the three guideline Modes.**

13. Unsafe bacteria concentrations (Red Mode) were generally caused by surface run-off as a result of rainfall.
14. Although the Rai River at Rai Falls often had the highest bacteria levels of the sites monitored, an assessment of changes over the last 10 years showed significant reductions in bacteria concentrations. The Te Hoiere Catchment Restoration Project aims to improve water quality further.
15. Trend analysis also showed a significant reduction in bacteria concentrations in the Taylor River at Riverside, which had been the site with the poorest recreational water quality in the past. The improvements are the results of repairs to sewerage infrastructure damaged by earthquakes.
16. For Ngakuta Bay and the Waihopai River at Craigloch #2, comparison with earlier years showed notable increases in bacteria concentrations. Monitoring of additional sites as well as investigation by the compliance department (for Ngakuta Bay) will allow sources of contamination to be identified. Once sources are known targeted actions to improve water quality are possible.

17. SFR Grades and NPS-FM states for sites monitored in the 2021/22 summer season are shown in **Table 1**. The majority of sites have SFR Grades of Good or Fair, but one coastal beach and three river sites are graded Poor or Very Poor.

Type	Site	SFR Grade	NPS-FM state
Coastal Sites	Anakiwa	Good	
	Momorangi Bay	Good	
	Ngakuta Bay	Poor	
	Governors Bay	Fair	
	Picton Foreshore	Fair	
	Waikawa Bay	Fair	
	Waikutakuta/Robin Hood Bay East	Fair	
	Pukatea/Whites Bay	Good	
River Sites	Rai Rv at Rai Falls	insufficient data	
	Te Hoiere/Pelorus Rv at Pelorus Bridge	Good	Good
	Te Hoiere/Pelorus Rv at Totara Flat	Poor	Poor
	Ohinemahuta Rv at Onamalutu Domain	Fair	Fair
	Wairau Rv at Ferry Bridge	Fair	Fair
	Wairau Rv at Blenheim Rowing Club	Fair	Fair
	Taylor River at Riverside	Very Poor	Poor
	Waihopai River at Craigloch #2	Poor	Poor

**Table 1: SFR Grades and NPS-FM states for swimming sites monitored in the 2021/22 summer season.**

18. NPS-FM states are very similar to SFR Grades for the river swimming spots.
19. More detailed information can be found in the full report.

## Next steps

20. Once approved, the report will be made available to the public on the MDC website.
21. Additional monitoring will be carried out in Ngakuta Bay and the Waihopai River catchment to identify sources of contamination.
22. Sites will be monitored again in the next summer season (2022/23) with inclusion of Okiwi Bay and Mistletoe Bay, which could not be monitored this season due to access restrictions as a result of road slips.

## Presentation

A short presentation will be given by Steffi Henkel (15 minutes).

## Attachment

*Attachment 1* - Recreational Water Quality Report – 2021-2022 (Report is available on Council's website via the following link <https://www.marlborough.govt.nz/your-council/meetings>)

Author	Steffi Henkel, Environmental Scientist, Water Quality
Authoriser	Alan Johnson, Environmental Science & Monitoring Manager

## 9. Update – Community-Led Biosecurity Programmes

(Clr Croad) (Report prepared by Jono Underwood)

C230-001-M07, E315-003-023-03

### Purpose of Report

1. To provide the Committee an update on the work being delivered by two very active community trusts undertaking community-led biosecurity programmes. These are the Marlborough Sounds Restoration Trust (MSRT) and the South Marlborough Landscape Restoration Trust (SMLRT).

### Executive Summary

2. For many years, Council has supported community-led organisations that deliver programmes that align with Council's own regional priorities.
3. This support not only includes in-kind technical input (for example ex-officio roles on committees) but also direct financial grants derived from Council's core Biosecurity budget. These grants are documented via Funding Agreements that get reviewed every five years.
4. Both the MSRT and SMLRT are two such community organisations supported in this way. Both are delivering programmes that enhance the management of invasive species threats in Marlborough.

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### RECOMMENDATION

That the information be received.

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### Background/Context

5. Council has long recognised the value of community-led biosecurity initiatives. When these align with strategic priorities for Council, this recognition has also extended to direct financial support (as opposed to contestable support) derived from the core Biosecurity budget at Council.
6. Since 2008, three such initiatives have been supported in this way. Two of these relate to standalone community trusts (who are presenting) with the third being the Chilean Needle Grass Action Group where support is by way of 'ring-fenced' funds.
7. MSRT has been delivering a highly successful wilding pine programme across the Marlborough Sounds. For many years, Council has committed to providing a core operating grant of \$30,000 per annum to support the work of the Trust. This has been primarily a result of the wilding pine programme aligning with the long-term goals of Council to address wilding pine threats.
8. In more recent years, the Trust has also been exploring both the establishment of sustainable community-led predator and ungulate (i.e. deer, goats) suppression projects. These elements also obtained support through Council's contestable Working for Nature/Mahi mō te Taiao grants scheme.
9. While only being established since 2016, SMLRT is also delivering successful initiatives in South Marlborough, also with a focus on the wilding pine threat. Similarly, Council has committed to providing a core operating grant of \$30,000 per annum to support the work of the Trust.
10. SMLRT have been able to successfully partner with private landholders, including gathering direct financial contributions, to deliver larger landscape-scale programmes. SMLRT have also been able to partner with the Department of Conservation to explore options for wilding management within alpine basins of the [big] Branch River catchment.
11. It is because these Trusts have proven themselves as being capable community-led organisations, National Wilding Conifer Control Programme funding has also been able to be 'injected' to boost or sustain programmes that aligned with national priorities.

## Presentation

A short presentation will be given by Marlborough Sounds Restoration Trust (10 minutes), then South Marlborough Landscape Restoration Trust (10 minutes).

Author	Jono Underwood, Biosecurity Manager
Authoriser	Alan Johnson, Environmental Science & Monitoring Manager

## 10. Significant Marine Site Survey Number 7 and the Expert Panel Review (2020-2021)

(also refer separate report available on Council's website)

(Clr Hope) (Report prepared by Oliver Wade)

E325-002-004-01

### Purpose of Report

1. To provide an update on monitoring of marine ecology in the Marlborough Sounds.

### Executive Summary

2. This report describes the findings of the 2021 ecologically significant marine sites (ESMS) programme fieldwork conducted by Davidson Environmental and the recommendations of the expert panel relating to those sites.
3. 11 sites were surveyed during this monitoring.
  - a) two in Te Whanganui/Port Underwood.
  - b) five in Pelorus Sound/Te Hoiere.
  - c) four in Queen Charlotte Sound/Totaranui.
4. Four new sites in Pelorus Sound/Te Hoiere are recommended for inclusion in the ESMS programme.
5. The boundaries of two sites are recommended for adjustment due to new survey information.
6. Many of the sites surveyed exhibited damage by human activity or an unexplained ecological shift in the seafloor community.

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### RECOMMENDATION

That the information be received.

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### Background/Context

7. Marlborough District Council ESMS programme promotes the protection of areas of significant indigenous biodiversity in the coastal marine area (CMA).
8. The core ESMS programme identifies new sites and monitors the condition of existing sites. This is achieved predominantly through scientific surveys of the seafloor.
9. This monitoring has taken place annually since 2015 at a variety of locations across the Marlborough CMA.
10. The expert panel meets in winter to discuss the findings of the previous summers monitoring and assesses site characteristics against the significance criteria provided in the proposed Marlborough environment plan.
11. The expert panel then makes recommendations to Council for the inclusion of sites within the ESMS programme that meet the significance criteria.

## Presentation

A short presentation will be given by Oliver Wade (10 minutes).

## Attachment

*Attachment 1* - Significant marine site survey number 7 and the expert panel review (2020-2021): Davidson et al. (2022) (Report is available on Council's website via the following link

<https://www.marlborough.govt.nz/your-council/meetings>

Author	Oliver Wade, Principal Coastal Scientist – Nautical and Coastal Team
Authoriser	Hans Versteegh, Environmental Science and Policy Group Manager

## 11. New Zealand King Salmon Compliance Monitoring 2020/2021

(Clr Hope) (Report prepared by Claire Frooms)

U140294, U140295, U140296, U160675, U150081,  
U040217, U040412, U021247, MFL456

### Purpose of Report

1. The purpose of this report is to provide the Environment Committee with an overview of the compliance levels achieved by the New Zealand King Salmon (NZKS) Marine Farms in the Marlborough Sounds following monitoring conducted by Cawthron Institute and SLR in 2020/2021.

### Executive Summary

2. This report details the compliance assessments made at NZKS's marine farms in the Marlborough Sounds. Nine farms were reported on, eight of which have relevant monitoring resource consent conditions. Of these three were found to be non-compliant; two were technically non-compliant and three were compliant, one doesn't have relevant conditions. The main areas of non-compliance related to feed levels discharged and benthic environmental quality standards.
3. This report details the compliance levels with the quantitative monitoring of the Enrichment Stage (ES), Environmental Quality Standard (EQS) and the copper and zinc levels at the farms.

### RECOMMENDATION

That the information be received.

### Background/Context

4. NZKS is the principal finfish farming company in the Marlborough Sounds and currently has consent to operate finfish farms at 11 sites in the Region (Figure 1). Nine of these sites were active in the 2020/2021 monitoring period. The remaining two sites were followed.

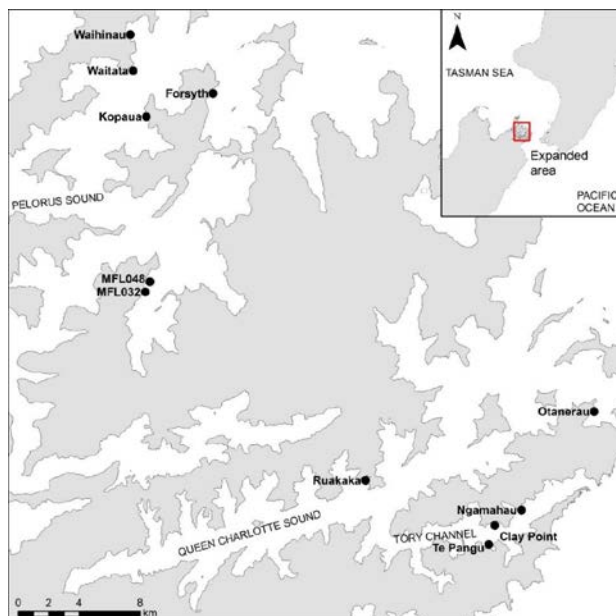


Figure 1: Location of the New Zealand King Salmon consented areas for salmon farming in the Marlborough Sounds.

5. Each of these finfish farms requires a coastal permit to occupy and operate in public space.
6. This item covers the monitoring results from annual monitoring at nine existing farm locations: Forsyth Bay; Waihinu Bay; Ruakaka Bay; Otanerau Bay (low flow farms) and Clay Point; Te Pangu Bay; Ngamahau; Waitata Reach; Kopaua (high flow farms).
7. The two farm locations in Crail Bay were not occupied in 2020/2021, no monitoring is required by the resource consent and no voluntary monitoring was conducted.
8. Whilst all nine of the monitored marine farms have resource consents, not all provide conditions requiring monitoring. NZKS voluntarily monitor the Waihinu, Ruakaka and Otanerau Bay farms as their consents have no monitoring requirement in relation to their discharges.
9. In late 2014 the Benthic Standards Working Group agreed to the BMP to manage farms within environmental limits. The objectives of the BMP guidelines include:
  - 9.1 To develop a standardised and accepted protocol to assess environmental compliance;
  - 9.2 To support environmentally responsible and profitable aquaculture;
  - 9.3 To minimise impacts on the environment and thereby minimising risks to biodiversity and associated ecosystem processes;
  - 9.4 To ensure sustainable management.
10. The Cawthron Institute environmental monitoring reports provide information for each of the High Flow farms on the biochemical and biological state of the seabed, and the nutrient status of the water column. Copper and zinc levels in the seabed sediments are also measured.
11. SLR provided monitoring reports for each of the low flow farms to determine compliance with the farms consent conditions. These were granted prior to development of the BMP-Benthic guidelines. Compliance with the BMP has not been assessed for these farms.

## Enrichment Stage Conditions

12. Enrichment of the seabed is caused by fish waste and uneaten fish food falling onto the seabed. The state of the seabed was assigned an enrichment stage (ES) score by Cawthron Institute. Some of the resource consents set out a maximum permitted ES or Environmental Quality Standard (EQS) level. Where there is a conflict between the BMP and resource consent conditions, the resource consent conditions prevail.
13. The BMP guidelines adopt a quantitative enrichment stage scale to characterise the benthic state. The guidelines specify an industry operational goal of  $ES \leq 5.0$  within the zone of maximal effect ("ZME"). An ES of 5.0 is described as very high enrichment.
14. Enrichment causes changes in the types and number of organisms which inhabit the sediments. Excessive levels can harm seabed life as oxygen is depleted and anaerobic processes take over.
15. The NZKS finfish farms are broadly divided into "low flow" (<10 cm/s) and "high flow" (>10cm/s) sites.
16. Farms in low flow environments receive greater concentrations of organic material beneath the pens than higher flow farms where particles are more widely dispersed. This makes managing low flow farms challenging as the seabed can be overwhelmed and stop assimilating organic material even under low levels of feed discharge.
17. Figure 2 shows a stylised depiction of a typical enrichment gradient experienced at low flow sites (from Keely, 2013), showing generally understood responses in commonly measured environmental variables (species richness, infauna abundance, sediment organic content and sulfides and redox). Apparent Redox Potential Discontinuity depth (aRPD) and prevalence of bacteria (*Beggiatoa* sp.) mats and methane / HS out-gassing also indicated. The gradient spans from pristine conditions on the right ( $ES = 1.0$ ) to highly enriched azoic conditions on the left ( $ES = 7.0$ ).



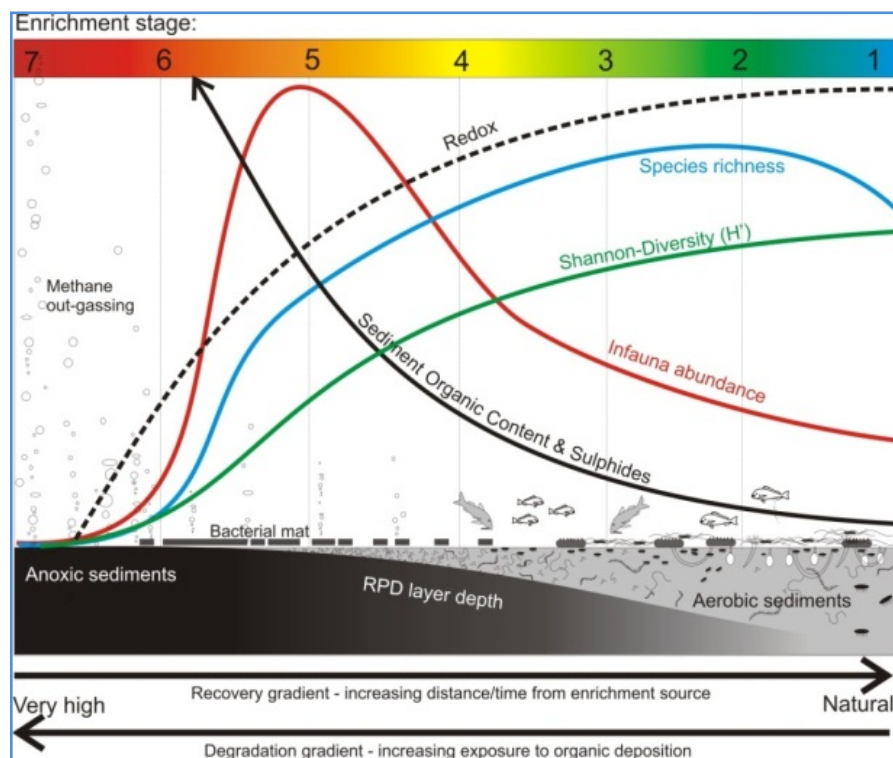


Figure 2: Enrichment stages

18. In order to achieve compliance with resource consent conditions at some of the marine farms full compliance with the EQS must be achieved. This includes the quantitative ES score at each zone and also qualitative standards at each zone, as shown in Table 1.

Zone	Compliance Monitoring Location	EQS
Zones 1 & 2 – beside and beneath the net pens	Measured beneath the edge of the net pens – ‘Pen’ Stations on Figure 3	ES ≤ 5.0 No more than one replicate core with no taxa (azoic), No obvious, spontaneous out-gassing (H <sub>2</sub> S/methane), Bacteria mat ( <i>Beggiatoa</i> ) coverage not greater than localized/patchy in distribution.
Zone 3 – near to the net pens	Measured at the Zone 2/3 Boundary Stations on Figure 3	ES ≤ 4.0 Infauna abundance is not significantly higher than at corresponding ‘Pen’ Station Number of taxa >75% of number at relevant / appropriate reference Station(s)
Zone 4 – outside the footprint area	Measured at the Zone 3/4 Boundary Stations on Figure 3	ES < 3.0 Conditions remain statistically comparable with relevant / appropriate reference Station(s)

Table 1: EQS requirements for Waitata Reach Marine Farm

19. Monitoring results provided by Cawthron Institute in relation to the High Flow sites show that the farms are in compliance with both resource consent conditions and BMP guidelines in relation to the overall ES levels.
20. Monitoring at the low flow sites was carried out by SLR rather than Cawthron for the first time this monitoring year. This change in reporting does not allow a comparison in results to previous years as the reports and analysis does not follow BMP guidelines.




21. Compliance with the BMP for the low flow farm is not therefore accessed this year.
22. SLR reported general compliance with the relevant resource consents at three of the low flow sites. However, they do report non-compliance with the resource consent at the Ruakaka farm.


**Table 3: General descriptions and primary environmental characteristics for the seven enrichment stages (see Keeley et al. 2012 a,b). HF = High Flow sites (mean mid-water current speeds  $\geq 10 \text{ cm.s}^{-1}$ ), LF = Low Flow sites ( $< 10 \text{ cm.s}^{-1}$ ).**






ES	General description		Environmental characteristics
1.0	<b>Pristine end of spectrum.</b> Clean unenriched sediments. Natural state, but uncommon in many modified environments	LF	Environmental variables comparable to an unpolluted / un-enriched pristine reference station.
		HF	As for LF, but infauna richness and abundances naturally higher (about $2 \times$ LF) and %organic matter (OM) slightly lower.
2.0	<b>Minor enrichment.</b> Low-level enrichment. Can occur naturally or from other diffuse anthropogenic sources. 'Enhanced zone.'	LF	Richness usually greater than for reference conditions. Zone of 'enhancement' – minor increases in abundance possible. Mainly a compositional change. Sediment chemistry unaffected or with only very minor effects.
		HF	As for LF
3.0	<b>Moderate enrichment.</b> Clearly enriched and impacted. Significant community change evident.	LF	Notable abundance increase; richness and diversity usually lower than reference station. Opportunistic species (i.e. Capitellid worms) begin to dominate.
		HF	As for LF
4.0	<b>High enrichment.</b> Transitional stage between moderate effects and peak macrofauna abundance. Major community change.	LF	Diversity further reduced; abundances usually quite high, but clearly sub-peak. Opportunistic species dominate, but other taxa may still persist. Major sediment chemistry changes (approaching hypoxia).
		HF	As above, but abundance can be very high while richness and diversity are not necessarily reduced.
5.0	<b>Very high enrichment.</b> State of peak macrofauna abundance.	LF	Very high numbers of one or two opportunistic species (i.e. Capitellid worms, nematodes). Richness very low. Major sediment chemistry changes (hypoxia, moderate oxygen stress). Bacterial mat usually evident. Out-gassing occurs on disturbance of sediments.
		HF	Abundances of opportunistic species can be extreme ( $10 \times$ LF ES 5.0 densities). Diversity usually significantly reduced, but moderate richness can be maintained. Sediment organic content usually slightly elevated. Bacterial mat formation and out-gassing possible.
6.0	<b>Excessive enrichment.</b> Transitional stage between peak abundance and azoic (devoid of any organisms).	LF	Richness and diversity very low. Abundances of opportunistic species severely reduced from peak, but not azoic. Total abundance low but can be comparable to reference stations. %OM can be very high ( $3-6 \times$ reference).
		HF	Opportunistic species strongly dominate, with taxa richness and diversity substantially reduced. Total infauna abundance less than at stations further away from the farm. Elevated %OM and sulfide levels. Formation of bacterial mats and out-gassing likely.
7.0	<b>Severe enrichment.</b> Anoxic and azoic; sediments no longer capable of supporting macrofauna with organics accumulating.	LF	None, or only trace numbers of infauna remain; some samples with no taxa. Spontaneous out-gassing; bacterial mats usually present but can be suppressed. %OM can be very high ( $3-6 \times$ reference).
		HF	Not previously observed — but assumed similar to LF sites.










**Figure 3: General descriptions and primary environmental characteristics for the seven enrichment stages as outlined in the BMP Guidelines**

Table 2: Enrichment stage / Benthic conditions results summary for Zone of Maximum Effects (ZME)

Low Flow Sites					
Waihinau (Flow 8.4 cm/s)	2019/2020 Result ES (95% CI)	2020/2021 Result Benthic conditions assessment	Estimated increase/de crease in ES from previous year	RC Benthic Condition Compliance	BMP Compliance
Zone 1	(Pen 1) 2.7 (0.1)	No azoic conditions sampled. High numbers of two species of opportunistic taxa, indicative of high enrichment. Major sediment chemistry changes. Bacterial mat (~10% coverage) present at Pen 1. No outgassing observed.		N/A	Not assessed
	(Pen 2) 4.7 (0.1)				
Comment	Descriptors of sediment changes and no outgassing sit the results at a minimum of high enrichment level (ES 4) but the presence of bacterial mat and very high numbers of two opportunistic species is indicative of very high enrichment (ES 5).				
Ruakaka (Flow 3.7 cm/s)	2019/2020 Result ES (95% CI)	2020/2021 Result Benthic conditions assessment	Estimated increase/de crease in ES from previous year	RC Benthic Condition Compliance	BMP Compliance
Zone 1	(Pen 1) 4.1 (0.2)	One pen sample was anoxic. Bacterial mat coverage observed at pens. Regular outgassing observed on disturbance of sediments.			Not assessed
	(Pen 2) 5.1 (0.2)				
Comment	Anoxic samples fit within ES 7 however, given this was only one sample at one pen SLR reports that this has not been sufficient to classify the whole sample station as anoxic. The bacterial mat coverage and outgassing is indicative of ES 5 and higher.				
Forsyth (Flow 3.0 cm/s)	2019/2020 Result ES (95% CI)	2020/2021 Result Benthic conditions assessment	Estimated increase/de crease in ES from previous year	RC Benthic Condition Compliance	BMP Compliance
Zone 1	(Pen 1) 6.1 (0.6)	No azoic conditions but impacted conditions. Significant difference in community composition with distance from the			Not assessed
	(Pen 2) 5.7 (0.4)				
	(Pen 3) 5.6 (0.3)				

		pens. Major sediment chemistry changes. Four taxa contribute to over 90% of the macrofauna community composition in zone 1.			
Comment	As a result of the 2019/2020 significant non-compliance the pens at Forsyth Bay were move 80m and therefore the sampling locations in this latest round are no longer directly comparable.				
Otanerau (Flow 6.0 cm/s)	2019/2020 Result ES (95% CI)	2020/2021 Result Benthic conditions assessment	Estimated increase/decrease in ES from previous year	RC Benthic Condition Compliance	BMP Compliance
Zone 1	(Pen 1) 5.1 (0.3)	Five taxa contribute to over 93% of the community in zone 1. The numerically dominant marine worms are a strong indication an area is highly enriched. Major sediment chemistry changes.			Not assessed
	(Pen 2) 5.0 (0.5)				
Comment	No bacterial mat coverage or outgassing were detected and whilst opportunistic species dominate, other species persist so it appears ES level 5 has not been detected this year.				

High Flow Sites				
Clay Point (Flow 19.6 cm/s)	Enrichment stage (95% CI)			
	2020/2021 Result	Increase/decrease in ES from previous year	RC Condition Compliance	BMP Compliance
Pen 1	4.6 (0.1)	No change	≤ 5.0	≤ 5.0
Pen 2	3.9 (0.2)		≤ 5.0	≤ 5.0
Pen 3	3.6 (0.2)		≤ 5.0	≤ 5.0
Waitata (Flow 17.6 cm/s)	Enrichment stage (95% CI)			
	2020/2021 Result	Increase/decrease in ES from previous year	RC Condition Compliance	BMP Compliance
Pen 1	2.8 (0.1)		≤ 5.0	≤ 5.0
Pen 2	3.1 (0.6)		≤ 5.0	≤ 5.0
Pen 3	2.8 (0.1)		≤ 5.0	≤ 5.0

Kopaua (Richmond) (Flow 15.7 cm/s)	Enrichment stage (95% CI)			
	2020/2021 Result	Increase/decrease in ES from previous year	RC Condition Compliance	BMP Compliance
Pen 1	4.6 (0.2)		≤ 5.0	≤ 5.0
Pen 2	4.3 (0.1)		≤ 5.0	≤ 5.0
Pen 3	4.4 (0.0)		≤ 5.0	≤ 5.0
Ngamahau (Flow 21.1 cm/s)	Enrichment stage (95% CI)			
	2020/2021 Result	Increase/decrease in ES from previous year	RC Condition Compliance	BMP Compliance
Pen 1	4.2		≤ 5.0	≤ 5.0
Pen 2	3.9		≤ 5.0	≤ 5.0
Pen 3	3.0		≤ 5.0	≤ 5.0
Te Pangu (Flow 15 cm/s)	Enrichment stage (95% CI)			
	2020/2021 Result	Increase/decrease in ES from previous year	RC Condition Compliance	BMP Compliance
Pen 1	4.7 (0.1)		≤ 5.0	≤ 5.0
Pen 2	4.2 (0.1)		≤ 5.0	≤ 5.0
Pen 3	4.1 (0.1)		≤ 5.0	≤ 5.0

### Copper and Zinc Conditions

23. Copper and zinc can accumulate in sediments beneath finfish farming operations. Copper is the principal active agent in antifouling paints that may be applied to underwater structures. Salmon feed contains zinc as an additive for fish health, leading to its discharge in faecal matter and uneaten feed.
24. These metals do not breakdown overtime; nor are they utilised by biota at rates which would attenuate over following timescales. Metals may reduce in sediment overtime through resuspension and dispersion.
25. NZKS consents granted since 2014 include conditions on copper and zinc monitoring and limits based on Interim Sediment Quality Guidelines (ISQS) of the Australian and New Zealand Environment and Conservation Council (ANZECC (2000)). These are the same standards recommended in the BMP guidelines; therefore compliance of copper and zinc levels below all nine marine farms has been assessed solely in accordance with these ANZECC ISQS concentrations.


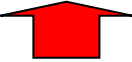


**Table 3: ANZECC (2000) Interim Sediment Quality Guideline concentrations for copper and zinc (mg/kg)**



	ISQG-Low	ISQG-High
Copper	65	270
Zinc	200	410







26. There was a trend of increasing levels of zinc and copper concentrations at three out of the four low flow site and generally they were technically non-compliant with the BMP guidelines. They were predominantly in exceedance of the ANZECC (2000) ISQG-Low trigger levels, but Ruakaka and Otanerau Bay also exceeded the ANZECC (2000) ISQG-High trigger levels for zinc.

27. The 5 high flow sites with Copper and Zinc conditions were all compliant with their resource consent conditions and the BMP guidelines.




**Table 4: Copper and Zinc Levels**

<b>Low Flow Sites</b>				
<b>Waihinau (Flow 8.4 cm/s)</b>	<b>Copper and Zinc Levels</b>			
	<b>2020/2021 Result</b>	<b>Increase/decrease in results from previous year</b>	<b>RC Condition compliance</b>	<b>BMP Compliance</b>
Copper	Overall Pen average 42.7 (±10.8) mg/Kg		N/A	Compliant
Zinc	Overall Pen average 346.7 (±32.7) mg/Kg		N/A	Non-compliant with ISQG-Low
<b>Ruakaka (Flow 3.7 cm/s)</b>	<b>Copper and Zinc Levels</b>			
	<b>2020/2021 Result</b>	<b>Increase/decrease in results from previous year</b>	<b>RC Condition compliance</b>	<b>BMP Compliance</b>
Copper	Overall Pen average 124.3 (±14) mg/Kg		N/A	Non-compliant with ISQG-Low
Zinc	Overall Pen average 460 (±35.6) mg/Kg		N/A	Non-compliant with ISQG-High
<b>Forsyth (Flow 3.0 cm/s)</b>	<b>Copper and Zinc Levels</b>			
	<b>2020/2021 Result</b>	<b>Increase/decrease in results from previous year</b>	<b>RC Condition compliance</b>	<b>BMP Compliance</b>
Copper	Overall Pen average 35.3 (±4.8) mg/Kg		N/A	Compliant
Zinc	Overall Pen average 341.7 (±16.1) mg/Kg		N/A	Non-compliant with ISQG-Low

Otanerau (Flow 6.0 cm/s)	Copper and Zinc Levels			
	2020/2021 Result	Increase/decrease in results from previous year	RC Condition compliance	BMP Compliance
Copper	Overall Pen average 81.2 ( $\pm 14.9$ ) mg/Kg		N/A	Compliant with ISQG-Low
Zinc	Overall Pen average 446.7 ( $\pm 77.1$ ) mg/Kg		N/A	Non-compliant with ISQG-High

High Flow Sites				
Clay Point (Flow 19.6 cm/s)	Copper and Zinc Levels			
	2020/2021 Result	Increase/decrease in results from previous year	RC Condition compliance	BMP Compliance
Copper	Overall Pen average 16.3 mg/Kg		Compliant	Compliant
Zinc	Overall Pen average 113.6 mg/Kg		Compliant	Compliant
Waitata (Flow 17.6 cm/s)	Copper and Zinc Levels			
	2020/2021 Result	Increase/decrease in results from previous year	RC Condition compliance	BMP Compliance
Copper	Overall Pen average 6.9 mg/Kg		Compliant	Compliant
Zinc	Overall Pen average 63.4 mg/Kg		Compliant	Compliant
Kopaua (Richmond) (Flow 15.7 cm/s)	Copper and Zinc Levels			
	2020/2021 Result	Increase/decrease in results from previous year	RC Condition compliance	BMP Compliance
Copper	Overall Pen average 27.4 mg/Kg		Compliant	Compliant
Zinc	Overall Pen average 83.7 mg/Kg		Compliant	Compliant



Ngamahau (Flow 21.1 cm/s)	Copper and Zinc Levels			
	2020/2021 Result	Increase/decrease in results from previous year	RC Condition compliance	BMP Compliance
Copper	Overall Pen average 4 mg/Kg	No Change	Compliant	Compliant
Zinc	Overall Pen average 39.7 mg/Kg		Compliant	Compliant
Te Pangu (Flow 15 cm/s)	Copper and Zinc Levels			
	2020/2021 Result	Increase/decrease in results from previous year	RC Condition compliance	BMP Compliance
Copper	Overall Pen average 21.5 (±6.4) mg/Kg		Compliant	Non-compliant with ISQG-Low
Zinc	Overall Pen average 199.1 (±31.1) mg/Kg		Compliant	Non-compliant with ISQG-Low

### Further Compliance Assessment

28. Resource consents for the individual marine farms also detail a number of other conditions, relating to both environmental impacts and otherwise. Compliance with consent conditions has been assessed using Council's compliance scoring where each is determined to be: Unable to assess; Compliant; Technically non-compliant; Non-compliant; or Significantly non-compliant.

Table 5: Summary of overall compliance with resource consent conditions at high flow sites

High Flow Sites					
Clay Point (Flow 19.6 cm/s)					
ES	EQS	Copper & Zinc	Water Column	WQS	Sampling & reporting requirements
Compliant	N/A	Compliant	Insufficient Information – The report doesn't detail the presence of macroalgae.	Complaint.	Compliant
Waitata (Flow 17.6 cm/s)					
ES	EQS	Copper & Zinc	Water Column	WQS	Sampling & reporting requirements
Non-compliant – the ES level at the zone 3/4 is not statistically comparable with reference stations.	Undetermined – The interpretation of the boundary of zone 3/4 is subject to a declaration before the	Compliant	Compliant	Technically non-compliant - The incorrect heirarchy of responses was provided in the report.	Technically non-compliant –The MEMAMP was provided late to Council. The report doesn't highlight the



* Also non-compliant with feed levels discharged.	court and as such compliance is currently recorded as undetermined.				non-compliance as required.
<b>Kopaua (Richmond) (Flow 15.7 cm/s)</b>					
ES	EQS	Copper & Zinc	Water Column	WQS	Sampling & reporting requirements
Non-Compliant – ES levels in zone 4 were statistically higher than at reference stations.	Non-compliant – ES levels were not statistically comparable with reference stations. No statistical test was carried out and therefore no breach was identified in the report.	Compliant	Compliant	Technically non-compliant - The incorrect heirarchy of responses was provided in the report.	Technically non-compliant - The MEMAMP was provided late to Council.  Breaches were not identified in the report and therefore were not reported to the PRP as required.
<b>Ngamahau (Flow 21.1 cm/s)</b>					
ES	EQS	Copper & Zinc	Water Column	WQS	Sampling & reporting requirements
Compliant	Compliant	Compliant	Compliant	Compliant	Technically non-compliant – The nominated pen corner for monitoring purposes has been moved.  The report doesn't provide the full heirarchy of responses as required.  The MEMAMP and annual report were provided late to Council.

Te Pangu (Flow 15 cm/s)					
ES	EQS	Copper & Zinc	Water Column	WQS	Sampling & reporting requirements
Compliant	Compliant	Compliant	Compliant	N/A	Technically Non-compliant – The annual report was provided to Council late.

## Summary

29. Nine Marlborough Sounds New Zealand King Salmon marine farms were assessed during this monitoring period and as a result a number of non-compliances with both resource consent conditions, and BMP guidelines were identified.
30. The overall compliance assessment of all nine farms generated three non-compliant and two technically non-compliant marine farms. These assessments were reviewed by Council's Compliance QA Peer Panel where formal warnings were recommended for all three marine farms which had been assessed as non-compliant.
31. The formal warning has been issued to the New Zealand King Salmon Company and they are working to resolve these matters by reviewing some of their practices.
32. NZKS have advised that they intend to make application to review their resource consent conditions. Council will continue to monitor the relevant, applicable conditions and work with New Zealand King Salmon, while taking appropriate levels of enforcement action in response to non-compliance and to mitigate adverse effects.

## Presentation

A short presentation will be given by Claire Frooms (15 minutes).

## Attachment

*Attachment 1* – NZKS Compliance snapshot

Page [33]

Author	Claire Frooms, Environmental Protection Officer
Authoriser	Jamie Clark, Compliance Manager

# New Zealand King Salmon

## Benthic Compliance Monitoring

### 2020/21 Snapshot



#### KEY POINTS



9 Salmon Farms monitored



9 Salmon Farms operating during 2020/21 season



4 low flow sites monitored



5 high flow sites monitored



5/9 of the sites some level of non-compliance with consent conditions



3/9 non-compliant with resource consent conditions



2/9 technically non-compliant with resource consent conditions



5/5 of the sites with Resource Consent Copper and Zinc parameters in compliance.



4/9 sites compliant with BMP guideline for Copper and Zinc parameters.



3 formal warnings issued for non-compliance

#### Snapshot of the 2020/21 benthic monitoring

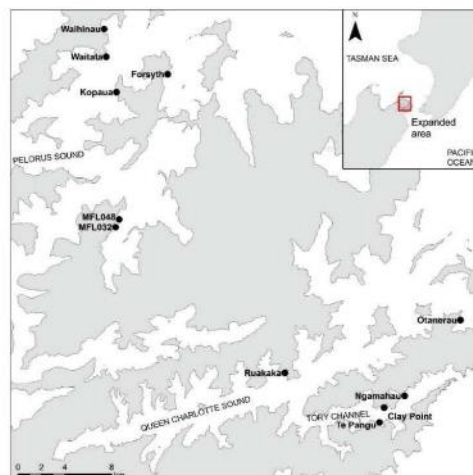
##### 2020/21 monitoring period

NZKS currently has consent to operate finfish farms at 11 sites in the Marlborough Sounds. Nine of these farms were active and monitored in 2020/2021. The remaining sites were followed. Many of the NZKS resource consents require annual environmental monitoring as a condition of consent. NZKS undertakes voluntary annual environmental monitoring of the other sites.

The Cawthron Institute reports provide information for each high flow farm on the biochemical and biological state of the seabed, and the nutrient status of the water column. SLR Consulting Ltd reports provide information for each low flow farm on the same parameters. Copper and zinc levels in the seabed sediments are also monitored by both.

The farms are broadly divided into "low flow" (<10 cm/s) and "high flow" (>10cm/s) sites. The monitoring results from annual monitoring at nine existing farm locations: Forsyth Bay, Waihinu Bay, Ruakaka Bay, Olanerua Bay (low flow farms) and Clay Point, Te Pangu, Ngamahau, Waiata, Kopaua (high flow farms). The two farm locations in Crail Bay were not occupied in 2020/2021.

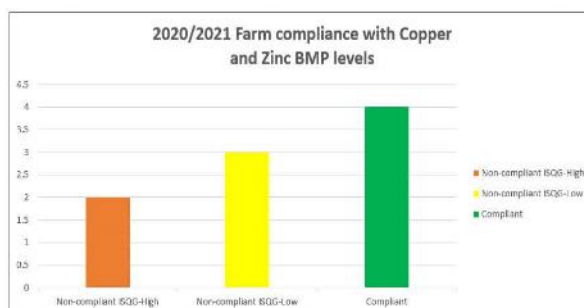
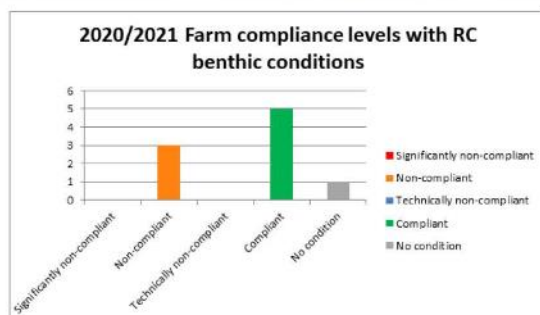
Whilst all nine of the monitored marine farms have resource consents, not all provide conditions requiring monitoring. Those farms sampled and analysed following the Best Management Practice Guidelines for salmon farms in the Marlborough Sounds: Benthic environmental quality standards and monitoring protocol ("the BMP"), were assessed for compliance against these guidelines.



#### Enrichment Stage Compliance

Enrichment of the seabed is caused by fish waste and uneaten fish food falling on the seabed. The state of the seabed was assigned an enrichment stage score by Cawthron, whilst SLR Consulting Ltd used univariate and multivariate data analysis to statistically evaluate sediment enrichment. Some of the resource consents have a maximum permitted level of enrichment and the BMP provides a permitted level of enrichment stage, which can be applied to all farms.

Monitoring results showed that not all farms are in compliance with the enrichment stage levels within individual consents and compliance with the other environmental quality standards was also inconsistent.





# New Zealand King Salmon

## Benthic Compliance Monitoring

### 2020/21 Snapshot



#### Copper and Zinc Compliance

Copper and zinc monitoring and limits based on Interim Sediment Quality Guidelines (ISQG) of the Australian and New Zealand Environment and Conservation Council (ANZECC (2000)). These are the same standards recommended in the BMP guidelines; therefore compliance of copper and zinc levels for all nine marine farms has been assessed solely in accordance with these ANZECC ISQG concentrations. Of the NZKS sites with resource consent conditions that relate to Copper and Zinc 100% complied with their conditions of consent. Four of the nine monitored salmon farms complied with the BMP copper and zinc parameters. Of the remaining five salmon farms, 3 were non-compliant with the ISQG-Low and 2 were non-compliant with the ISQG-High.

	ISQG-Low	ISQG-High
Copper	65	270
Zinc	200	410

#### Summary of Compliance Rating System

Results reported in this snapshot reflect the compliance of NZKS Farms with the benthic monitoring conditions within resource consents and compliance with the Marlborough Sounds: Benthic environmental quality standards and monitoring protocol (BMP)

No conditions	Compliant	Technical Non-compliant	Environmental Non-complaint	Significantly Non-compliant
Where conditions for environmental monitoring do not exist monitoring is completed by NZKS voluntarily.	Compliance with the BMP and/or the Conditions assessed.	Non-compliance with the condition or BMP which are considered to be technical where no environmental effect is observed or further information is required	Breach of benthic condition or BMP with moderate actual or potential adverse environmental effects.	Significant breach of benthic conditions or BMPs that causes environmental effects.

#### Summary

- There was one low flow farm and two high flow farms which recorded non-compliant enrichment stage results.
- High flow sites are in compliance with resource consent conditions for Copper and Zinc levels. Low flow farms don't have relevant resource consent conditions and were predominantly non-compliant with BMP guidelines for Copper and zinc levels.
- Where conditions for environmental monitoring do not exist monitoring is completed by NZKS voluntarily.
- The BMP guidelines provide an adaptive management response for dealing with instances of non compliance.
- These guidelines for management response have been followed by New Zealand King Salmon.

#### For More Information

For more information on compliance and enforcement monitoring undertaken by Marlborough District Council, contact the Environmental Protection Group

Phone: 03 520 7400  
Email: [monitoring@marlborough.govt.nz](mailto:monitoring@marlborough.govt.nz)  
Website: [www.marlborough.govt.nz](http://www.marlborough.govt.nz)



## 12. Resource Consent Hearings Update

(Clr Oddie) (Report prepared by Sue Bulfield-Johnston)

R450-004-22

### Purpose of Report

1. To provide a summary of the hearings undertaken since the previous report was provided together with update as to changes in practice following Covid19.

### Executive Summary

2. This report provides a rolling summary of hearings scheduled and completed for applications for resource consent. Since the onset of Covid19 and the Level 4 Lockdown a practice has been implemented to consider extension of timeframes and online hearings where appropriate.

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### RECOMMENDATION

That the report be received.

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### Background/Context

3. The Advocacy and Practice Integration Team (API) has responsibility for facilitating the Resource Consent hearing process under the Resource Management Act 1991. API continues to work with the Resource Consents team to make improvements to this process for the benefit of Council and those participating in that process.

### Hearings Update

4. Hearings are continuing to be scheduled during this current response phase to the Omicron virus. However, where possible remote attendance using zoom is encouraged or hearings adjourned (subjected to s37 threshold requirements) if reasonable and appropriate health and safety measures cannot be implemented to manage risk to attendees. There were three hearing that took place in March and April where the parties attended remotely, and the hearing was conducted using zoom. The only persons in chambers were the decision maker(s) and Hearing Facilitator. In all cases the hearings were conducted successfully, as if the parties were present in chambers.
5. One of the hearings was the final two days on the application U190438 - The New Zealand King Salmon Company Limited. These two days were set aside for the Hearing Panel to put questions to the experts on benthic evidence, the results of the joint witness caucusing, and proposed conditions (on matters other than benthic). There remain other matters still to be covered in hearing, however the Panel is of the view that these can be dealt with on the papers, meaning that further days in chambers will not be necessary.
6. The practice of encouraging remote attendance and/or adjourning where appropriate will continue while Council operates under the Omicron response phase.
7. Zoom links are provided for every hearing. It is likely this service will be provided on an ongoing basis.

### Applications that have been scheduled for hearing

8. At the time of writing this report 13 hearings have been completed in the year commencing 1 July 2021. Decisions have been issued for all but one of these applications, the remaining decision is pending and will be issued before the Environment Committee Meeting in June. A table listing these hearings is attached at Appendix 1.
9. One hearing has been set down in June as follows:

Date	U Number and Name	Details	Planner	Commissioner/Committee	Where being held
Tuesday 28 June	U060329 – P J Woolley	S136	Glen Parker	Commissioner Welsh	Council Chambers

10. Requests have been received to set hearings down for the following applications. No dates have been identified at the time of drafting this report.

U200055 – T G McLeod	Land Use (Building Land Use (Activity) x2 Discharge Permit (To Land)	Glen Parker
U200980 - Marberry Estates Limited	Land Use (Land Disturbance)	Fliss Morey
U200998 - McLachlan, D I; Yealands, A M; King, G D; Tarrant, M G; Watson, B C	Land Use (Land Disturbance)	Fliss Morey
U200349 – Marlborough District Council (For the Flaxbourne irrigation scheme project)	Water permit (Take water) x2 Land Use (Activity) x3 Land Use (River bed or Surface Activity) Land Use (Gravel Removal)  Note: This hearing had been scheduled to take place on Monday 11 October to Wednesday 13 October before Commissioner M Williams (Chair), Commissioner R Lieffering and Commissioner Proffit.  On 21 September 2021 the Applicant requested this application be suspended under s91A. No further date has been identified for this hearing.	Matthew McCallum-Clark

### Next steps

11. API will continue to facilitate the hearing process and adapt to the changing environment.

Author	Sue Bulfield-Johnston, Administrator and Hearing facilitator, Advocacy and Practice Integration
Authoriser	Barbara Mead, Advocacy and Practice Integration Manager

## Attachment 1

The following hearings have taken place in the year commencing 1 July 2021

Hearing Date	U Number and Name	Details	Planner	Commissioner / Committee	Status
Tuesday 6 July	U200493 – Kuku Holdings Limited	Coastal Permit (Marine Farm)	Peter Johnson	Commissioner S McGarry	Application refused  Decision Issued
Wednesday 7 July	U201026 – Moetapu Bay Community Jetty Incorporated	Coastal Permit (Structure)	Sarah Silverstar	Commissioner S McGarry	Application Granted  Decision Issued
Wednesday 5 August	U190930 – Totaranui 250 Trust	Coastal Permit (Structure) x2  Land Use (Activity)	Sarah Silverstar	Commissioner Welsh	Hearing adjourned pending receipt of further information and responses.
Wednesday 12 August	U201097 – Summerset Villages (Blenheim) Limited	Land Use (Activity)		Commissioner Burge	Application Granted  Decision Issued
Tuesday 14 September	U200242 – Mac Holdings Limited	Water Permit (Take Water)  Water Permit (Use Water)	Glen Parker	Commissioner R Enright	Hearing adjourned pending receipt of further information and responses.
Tuesday 28 September	U210232 – Watson Development & Investment Limited	Subdivision (Allotment Creation) Water Permit (Take water) Water Permit (Use Water)	Ian Sutherland	Commissioner S McGarry	Hearing adjourned pending receipt of further information and responses.
U200673 – Te Iwingaro Trust	S357B Objection to Cost	Anna Eatherley		Commissioner Welsh	Council Chambers
Wednesday 9 February	U200816 – G Goodsir	S357B Objection to Cost	Anna Eatherley	Commissioner Welsh	Council Chambers
Wednesday 16 February	U210437 – Tasman Pine Forest Limited	Land Use (Land Disturbance)	Fliss Morey	Clr J Arbuckle Clr T Sowman Clr B Faulls	Council Chambers

Hearing Date	U Number and Name	Details	Planner	Commissioner / Committee	Status
Wednesday 23 February	U210362 – Coolabah Family Trust	Subdivision (Allotment Creation)	Ian Sutherland	Commissioner Besier	Council Chambers
This hearing took place as scheduled on Tuesday 1 September 2020. It was adjourned pending further information. The applicant has since suspended the processing of the application under S91 and the extended the timeframe under s37A(5). The Applicant would like to have the application considered after the decision is issued on the MEP Variation 1 relating to the aquaculture provisions.	U161142 – Marlborough Aquaculture Limited	Coastal Permit (Marine Farm)	Peter Johnson	Commissioner J Mills and Commissioner D Oddie	Hearing adjourned pending further information.



## 13. Variation 2 to the Proposed Marlborough Environment Plan – Ecologically Significant Marine Sites

(Cllr Peters) (Report prepared by Louise Walker)

M100-11-07

### Purpose of Report

1. To approve the preparation and consultation for a variation to the proposed Marlborough Environment Plan (PMEP) to amend existing and include new Ecologically Significant Marine Sites.

### Executive Summary

2. Approval is sought to proceed with the preparation of a variation to adjust the spatial boundaries of Ecologically Significant Marine Sites currently identified in overlays in Volume 4 of the PMEP, to amend category ratings of sites currently identified in Appendix 27 in Volume 3 and to add new significant sites where they have been identified.
3. The preparation of the variation will include consultation with relevant parties, including tangata whenua, any customary marine title groups in the area, Minister of Fisheries, Minister of Transport, Minister for the Environment, Minister of Conservation and relevant industry groups.
4. The final draft of the proposed variations will be brought back to the Planning, Finance and Community Committee to approve for notification in due course.

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### RECOMMENDATION

That Council approve the preparation and consultation on a variation to the ESMS Overlay Maps in Volume 4 and Appendix 27 in Volume 3 of the PMEP, as follows –

- a) Adjustments to the spatial boundaries of approximately 19 ecologically significant marine sites currently identified in the PMEP;
- b) The inclusion of approximately 26 new ecologically significant marine sites and 45 new sub-sites;
- c) Category changes to 8 ecologically significant marine sites currently identified in the PMEP;
- d) Consideration of the inclusion of new sites and amendments to existing sites identified in the 2020-2021 survey and confirmed by the Expert Panel, if they have progressed fully through the ordinary ESMS process.

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### Background/Context

5. The PMEP currently identifies 142 Ecologically Significant Marine Sites (ESMS) and subsites through Volume 4 (maps). These ESMSs provide for the protection of the indigenous biodiversity values at the sites as a matter of national importance in accordance with section 6(c) of the Resource Management Act 1991 (RMA).
6. When a site is identified, its tolerance to benthic disturbance is assessed and a category assigned. Sites that required a greater degree of protection are categorised as A or B. Through PMEP provisions, seabed disturbance activities are restricted at these sites in order to protect the indigenous biodiversity values. Less vulnerable sites fall under category C and terrestrial only sites (such as King Shag sites) do not have a category as benthic disturbance restrictions are irrelevant.
7. In order to ensure seabed disturbance doesn't impact fragile sites, a further protection measure is provided by way of a buffer area. Those sites with a buffer are listed in Appendix 27, Volume 3 of the PMEP which trigger rules requiring additional seabed activity restrictions.

8. The ESMSs currently mapped in the PMP were identified through a survey and monitoring programme established in 2014/15 by Marlborough District Council and the Department of Conservation. The programme collects data on biodiversity values at significant sites on an annual basis using a detailed range of agreed survey protocol. The results of monitoring in the form of annual monitoring reports are reported to the Environment Committee. Typically, the reports recommend changes to the boundaries of existing ESMS or the creation of new ESMS. There have been seven monitoring surveys undertaken since the adoption of the programme:  
  
Year 1: 2014-2015 Eastern Marlborough Sounds  
  
Year 2: 2015-2016 Croisilles Harbour and D'Urville Island  
  
Year 3: 2016-2017 Croisilles to Waitui Bay, outer Sounds  
  
Year 4: 2017-2018 Central Pelorus Sound  
  
Year 5: 2018-2019 Pelorus, Tory Channel, and Catherine Cove  
  
Year 6: 2019-2020 Queen Charlotte Sound, Tory Channel and Port Underwood  
  
Year 7: 2020-2021 Port Underwood, Queen Charlotte Sound and Pelorus Sound
9. The year 7 survey has been reviewed by an Expert Panel and is intended to be presented to the Environment Committee on 15 June 2022. As the sites identified in the 2020-2021 reports have not been through the complete process, a final decision to include them will be reliant on this final step being completed.
10. The year 1 results were incorporated into the notified version of the PMP. With the inclusion of the year 2 results being sought through a Council submission to the plan process. The PMP decision was released on 21 February 2020 confirming the year 1 and 2 survey sites, with some amendments.
11. Appeals were then filed against the PMP decision, including on aspects of the ESMS sites, buffers and related provisions. There are currently several outstanding appeals on these matters. However, the outcome of the appeals should not make a material difference to the management framework being applied for the inclusion and amendment of the sites forming this variation. There is a possibility of resolution of appeal points, through Environment Court mediation, occurring prior to the finalising of the variation. If this occurred, any changes that impacted the ESMSs would be considered before the final form of the variation is provided to this Committee for approval.
12. The boundary adjustments, category changes and new sites and subsites that form the basis of this ESMS variation have been identified through the survey and monitoring undertaken between 2016 and 2021 (years 3 to 7) by Davidson Environmental Limited and recommended by an Expert Panel after reviewing the survey findings.
13. Wildlife Management International issued a report titled *Population assessment during the breeding season of King Shag in the Marlborough Sounds, February 2020*. This report identified three sites that were not referenced in the ESMS programme as significant sites. Council's Environmental Scientist, Oliver Wade, has recommended the addition of these king shag sites through the variation.
14. Variation 1: Marine Farming and 1A: Finfish Farming were heard concurrently in November 2021. As part of the aquaculture farming variations, Aquaculture Management Areas (AMAs) were generally positioned outside of known ESMS sites, however there are several overlapping AMAs with sites that form part of the ESMS variation. Council lodged a submission to Variations 1 and 1A requesting the removal of AMAs from the ESMS sites. A decision is yet to be released from the Aquaculture Hearing Panel but the likelihood of the decision affecting the variation sites is minor.
15. The key aspect of the variation being proposed are:  
  
(a) Adjustments to the spatial boundaries of approximately 19 ecologically significant marine sites currently identified in the PMP;

- (b) The inclusion of approximately 26 new ecologically significant marine sites and 45 new sub-sites;
- (c) Category changes to 8 ecologically significant marine sites currently identified in the PMEP;
- (d) Consideration of the inclusion of new sites and amendments to existing sites identified in the 2020-2021 survey and confirmed by the Expert Panel, if they have progressed fully through the ordinary ESMS process.

## Assessment/Analysis

16. The PMEP recognises the need to continually collect and review information to build Council's knowledge about ESMSs, and to monitor them over time to understand the impacts of human and natural activity on the habitats and species within them.
17. The changes sought to the ESMSs mapped in the PMEP are based on new and better quality information about the biodiversity values at those sites provided through the ESMS survey and monitoring programme. There are three primary reasons for boundary adjustments, category changes and the addition of new sites:
  - (a) The size of the site, or biodiversity values at a particular site have increased or decreased over time as shown by survey data;
  - (b) The area of significance is shown to be greater or smaller than first thought due to better quality data obtained through surveying; and
  - (c) New sites with significant biodiversity values have been identified through surveying.
18. All of the sites for which boundary adjustments are being sought, and the newly identified sites and subsites have been assessed by an expert panel as meeting the criteria for ecological significance as set out in Appendix 3 of the PMEP.
19. The mapping of ESMSs, and the associated framework, implement Policy 8.1.2 in the PMEP - *Sites in the coastal marine area and natural wetlands assessed as having significant indigenous biodiversity value will be specifically identified in the Marlborough Environment Plan.*
20. The variation will be prepared in accordance with the RMA Schedule 1 process.
21. The preparation of the variation will include consultation with relevant parties, including tangata whenua, any customary marine title group in the area, Minister of Fisheries, Minister of Transport, Minister for the Environment, Minister of Conservation and relevant industry groups.
22. The final draft of the proposed variations will be brought back to the Planning, Finance and Community Committee to approve for notification in due course. At that time, all the associated documentation, such as the Section 32 report required under the RMA, will also be available for the Committee.

Author	Louise Walker, Strategic Planner
Authoriser	Pere Hawes, Manager Environmental Policy

## 14. Variation 3 to the Proposed Marlborough Environment Plan – Meretoto/Ship Cove Heritage Resource

(also refer to separate report available on Council's website)

(Clr Peters) (Report prepared by Louise Walker)

M100-11-07

### Purpose of Report

1. To approve the preparation and consultation for a variation to the proposed Marlborough Environment Plan (PMEP), in accordance with Schedule 1 of the Resource Management Act, to include Meretoto/Ship Cove and the Island of Motuara as a Heritage Resource.

### Executive Summary

2. Approval is sought to proceed with the preparation of a variation to include Meretoto/Ship Cove and Motuara Island giving the location heritage resource status in the PMEP by listing it in Appendix 13 and identifying the location on Volume 4 maps.
3. The need for a variation was, in effect, initiated by Heritage New Zealand Pouhere Taonga entering the site into the New Zealand Heritage List/Rārangī Kōrero as a 'Historic Place Category 1' (List number 9900).
4. The preparation of the variation will include consultation with relevant parties, including tangata whenua, any customary marine title group in the area, Minister of Conservation, Minister for the Environment, Minister for Oceans and Fisheries and the Minister for Arts, Culture and Heritage.
5. The final draft of the proposed variations will be brought back to the Planning, Finance and Community Committee to approve for notification in due course.

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### RECOMMENDATION

**That Council approve the preparation and consultation on a variation to the proposed Marlborough Environment Plan seeking the inclusion of Meretoto/Ship Cove and the Island of Motuara as a heritage resource.**

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### Background/Context

6. Heritage New Zealand Pouhere Taonga (HNZPT) entered the Meretoto/Ship Cove and Motuara Island site into the New Zealand Heritage List/Rārangī Kōrero as a 'Historic Place Category 1' (List number 9900). The Category 1 type listing identifies sites as being of special or outstanding historical or cultural significance or value.
7. The significance of Meretoto/Ship Cove is already recognised through non-regulatory methods including the erection of Pouwhenua, to mark the location, and storyboards to provide additional information to those visiting the area. The commentary on the site generally pertains to its connection with Captain Cook and iwi occupation at that time but there is a greater historic story to be told about this site and its extensive importance iwi.
8. The area identified by HNZPT for the Meretoto/Ship Cove listing is also the location of another HNZPT listing (List number 9780), identifying this site as Wahi Tupuna/Tipuna.
9. The proposed Marlborough Environment Plan (pMEP) lists Significant Heritage Resources and Sites and Places of Significance to Marlborough's Tangata Whenua Iwi in Appendix 13 and the sites are documented in Volume 4 (maps).
10. The PMEP is currently under appeal, however, appeal points on heritage resource sites have been resolved through mediation, with a consent order being issued by the Environment Court on 25 March 2022.

## Assessment/Analysis

11. Resource Management Act 1991(RMA), Section 6(f) requires the protection of historic heritage from inappropriate subdivision, use and development. The PMEP achieves this through provisions in the plan restricting activities at sites of significance. The main mechanism to trigger those provisions is through location listings in Appendix 13.
12. As HNZPT have listed Meretoto/Ship Cove as a Category 1 site it is necessary for Council to consider its inclusion in the PMEP in order to give effect to RMA direction.
13. The variation will be prepared in accordance with Schedule 1 of the RMA.
14. The tangata whenua who may be affected, through iwi authorities, will be consulted, as will any customary marine title group in the area.
15. The Minister of Conservation, Minister for the Environment, Minister for Oceans and Fisheries and the Minister for Arts, Culture and Heritage will also be consulted.
16. The final draft of the proposed variation will be brought back to the Planning, Finance and Community Committee to approve for notification in due course. At that time, all the associated documentation, such as the Section 32 report required under the RMA, will also be available for the Committee.

## Attachment

*Attachment 1* – Heritage New Zealand Pouhere Taonga – Report (Report is available on Council's website via the following link <https://www.marlborough.govt.nz/your-council/meetings>)

Author	Louise Walker, Strategic Planner
Authoriser	Pere Hawes, Manager Environmental Policy

## 15. Variation 4 to the Proposed Marlborough Environment Plan – Road stopping rezoning of land

(Cllr Peters) (Report prepared by Louise Walker)

M100-11-11

### Purpose of Report

1. To approve the preparation and consultation for a variation to the proposed Marlborough Environment Plan (PMEP), to zone currently unzoned land that has had the designation status removed due to a road stopping process.

### Executive Summary

2. Declarations of Road Stopping, pursuant to Section 342 of the Local Government Act 1974, have been undertaken for the following sites:
  - 2282 Queen Charlotte Drive: Section 1 SO 488337, 0.0080ha
  - 62 Alma Street: Section 1 SO 502937, 0.0012ha
  - 7 Herbert Street: Section 1 SO 516964, 0.0039ha
3. On stopping the road, the road is transferred to private ownership. While bespoke rules apply to managing activities in the road corridor, these only apply to the roading authority. When the land ceases to be road, there is no zoning and therefore no regulatory framework applying to manage the effects of activities on the land. This could lead to inappropriate activity being established or being undertaken on the ex-road reserve.
4. The intention of this variation to consider and recommend a suitable zoning for each of the sites.

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### RECOMMENDATION

**That Council approve the preparation and consultation on a variation to the proposed Marlborough Environment Plan proposing the zoning of land where road stopping has left it without a regulatory framework to manage activities at the sites.**

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### Background/Context

5. Road stopping can occur when a section of road is no longer considered necessary. The road stopping process removes the public road status and designation status, leaving the land unzoned. The unzoned land means that there is no regulatory management of land use which could result in inappropriate activity and subsequent outcomes. It is more effective (and efficient) to have a regulatory framework apply to the land in order to provide certainty to the landowner as to what can occur on land as a permitted activity and apply management where necessary to other activities.

### Assessment/Analysis

6. The zoning of land ensures there is a management framework in place to guide the sustainable use and development of land as required by Section 5 of the Resource Management Act.
7. The road stopping process removes the management framework by taking away the designation status. In order to give effect to the RMA new zoning is required to be applied to the sites. A variation will allow for the consideration of what zoning would be most appropriate given the circumstances at each location.
8. The variation will be prepared in accordance with Schedule 1 of the RMA.
9. The tangata whenua who may be affected will be consulted.

10. The Ministers of the Crown who may be affected will also be consulted.
11. The final draft of the proposed variation will be brought back to the Planning, Finance and Community Committee to approve for notification in due course. At that time, all the associated documentation, such as the Section 32 report required under the RMA, will also be available for the Committee.

Author	Louise Walker, Strategic Planner
Authoriser	Pere Hawes, Manager Environmental Policy

## 16. Information Package

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### RECOMMENDATION

That the Regulatory Department Information Package dated 15 June 2022 be received and noted.

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