



# Recommendation and decision on notification of resource consent application(s) under sections 95-95G of the Resource Management Act 1991 (RMA)

## Summary

I recommend the application is processed on a publicly notified basis. This is because:

- The application is to expand an existing dairy farm to include 61.5ha of land of which 51.8ha was historically sheep farmed.
- The mitigations proposed do not adequately avoid, remedy or mitigate all the adverse effects on freshwater, particularly noting the relevant policy context under which this application requires assessment.
- The adverse effects on the environment, and in particular on the new 61.5ha block, are more than minor.

## The application

### Particulars

Applicant:	Platinum Dairies Limited
Application reference:	APP-20211740
Site address or location:	149 McKenzie Road, Lochiel
New consent(s) for new activity(ies) (s88)	<input checked="" type="checkbox"/>
New consent(s) for existing activity(ies) (s88)	<input checked="" type="checkbox"/>
Change to conditions of existing consent(s) (s127)	<input type="checkbox"/>

### The proposal

The applicant is proposing to renew their discharge and water permits (AUTH-302423 and AUTH-302424) as well as expand the dairy platform to include 51.8ha of sheep farm and 9.7ha of dairy support land. They also require a land use consent for three feed pads. The proposal is for:

- Discharge of dairy shed effluent from milking up to 1000 cows from 25 July to 5 June (inclusive);
- Discharge of calving pad effluent from up to 120 cows for 24 hours per day from mid-July to mid-October (inclusive);
- The discharge of liquid effluent via low rate pods and slurry tanker onto 212ha;
- Take 120m<sup>3</sup>/day of groundwater at a rate of <2L/sec;
- New land use consent for three feed pads; and
- New land use consent for an expanded dairy farm.

<b>Water permit</b>	
Relevant rule(s)	Rule 23(d) RWP – discretionary Rule 54(d) pSWLP – discretionary
Source of water (bore or watercourse)	Bores E46/1145 and E46/0175
Groundwater zone/name of watercourse	Lower Oreti and Makarewa
Aquifer type (for groundwater takes)	Lowland

Rate of take	<2L/sec
Daily volume	120m <sup>3</sup> /day
Consistent with 120 L/cow/day?	Yes
Yearly volume	43,800m <sup>3</sup> /year
Discretionary allocation (m <sup>3</sup> /year)	RWP Lower Oreti - 27,700,000 pSWLP Lower Oreti – 19,310,000 RWP Makarewa - 49,065,000 pSWLP Makarewa – 62,670,000
Amount currently allocated (m <sup>3</sup> /year and % of discretionary allocation)	RWP Lower Oreti - 4,103,279 and 20% pSWLP Lower Oreti – 1,733,224 and 9% RWP Makarewa – 3,976,503 and 8% pSWLP Makarewa – 3,073,606 and 4.9%

<b>FDE discharge permit</b>	
Relevant rule(s)	Rule 50(d) RWP – restricted discretionary Rule 35(c) pSWLP – discretionary
Cow numbers	Increase to consented 1000
Stocking rate (cows/ha)	3.9
Winter milking proposed?	No
Other sources of effluent?	Silage leachate and calving pad
Effluent disposal area	212ha
Application rate and depth	Low rate pods – 10mm depth, 10mm/hour rate Slurry tanker – 5mm
Storage available	4,937m <sup>3</sup>
Massey pond calculator 90% storage requirement	4,214m <sup>3</sup>

<b>Land use consent – Barn and uncovered Pad #1</b>	
Relevant rule(s)	Rule 35A(b) pSWLP – discretionary NES-F Reg 11 – non complying
Size?	800m <sup>2</sup>
Cows?	120
Effluent collected in system?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Base material	Barn = concrete, pad = 500mm woodchip

<b>Land use consent – Calving barn and uncovered Pad #2</b>	
Relevant rule(s)	NES-F Reg 11 – non complying
Size?	1,560m <sup>2</sup>
Cows?	120
Effluent collected in system?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Base material	500mm wood chip

<b>Land use consent – Pad #3</b>	
Relevant rule(s)	Rule 35A(b) pSWLP – discretionary NES-F Reg 11 – non complying
Size?	1,295m <sup>2</sup>
Cows?	120
Effluent collected in system?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Base material	500mm wood chip over nova flow

<b>Land use consent – expanded dairy farm</b>	
---	--

Relevant rule(s)	Rule 20(e) pSWLP - discretionary
Dairy platform increasing in size?	Yes, adding 61.5ha.
Peak milking cow number increasing?	Yes, up to consented 1000
Cows remain on farm during winter?	100 cows wintered on farm on crop
Intensive Winter Grazing?	Reducing to 10ha of crop (permitted)
Young stock remaining on farm?	No – young stock going to third party grazier

Overall, the application is a **non-complying** activity.

## Public notification consideration

### 1. Is notification mandatory?

1.1 Has the applicant requested that the application be publicly notified? (s95(3)(a))	<input type="checkbox"/> Yes	Application must be publicly notified. Go to 10.2
	<input checked="" type="checkbox"/> No	Go to 1.2
1.2 Was further information, or commissioning of a report, requested under s92?	<input checked="" type="checkbox"/> Yes	Go to 1.3
	<input type="checkbox"/> No	Go to step 2.1
1.3 If yes, was the request refused, or did the applicant fail to respond or fail to provide the information by the deadline?	<input type="checkbox"/> Yes	Public notification is required by s95C. Go to 10.2
	<input checked="" type="checkbox"/> No	Go to step 2.1

### 2. Is notification precluded?

2.1 Is each activity subject to a rule or NES that precludes public notification?	<input type="checkbox"/> Yes	Go to 4.1
	<input checked="" type="checkbox"/> No	Go to step 2.2
2.2 Is each activity a controlled activity?	<input type="checkbox"/> Yes	Application must not be publically notified unless there are special circumstances. Go to 4.1
	<input checked="" type="checkbox"/> No	Go to 3.1

### 3. Is notification required?

3.1 Are any of the activities subject to a rule or NES that requires notification?	<input type="checkbox"/> Yes	Application must be publicly notified. Go to 10.2
	<input checked="" type="checkbox"/> No	Go to 3.2
3.2 Will the activity have, or is it likely to have, adverse effects on the environment that are more than minor?	<input checked="" type="checkbox"/> Yes	Application must be publicly notified. Complete 3.3 and go to 10.2
	<input type="checkbox"/> No	Complete 3.3 and go to 4.1.

### 3.3 Reasons adverse effects on the environment are less than minor / minor / more than minor

#### The existing environment

The existing site is an operational dairy farm located approximately 5km south of Winton township. Currently the applicant holds discharge permit AUTH-302423 and water permit AUTH-302424. The

discharge permit authorises the discharge of dairy shed effluent from 1000 cows via K-line pods. The water permit authorises the abstraction of 120,000L/day of groundwater. The property is located within the Makarewa River catchment which is part of the wider Oreti FMU.

The applicant recently purchased the 61.5ha property, known as the Muir Block, of which 9.6ha and 9.7ha was used to intensively winter graze Platinum Dairies cattle in 2018 and 2019, respectively. The remainder of the farm that was not used as dairy support land in the reference period<sup>1</sup> (51.8ha) has been historically used as a sheep farming operation. I note a site visit has not been undertaken due to pandemic restrictions. While I acknowledge site visits are recommended good practice, I have been unable to undertake one due to organisational restrictions around Council staff movements to reduce the spread of COVID-19 within Council and the community, which is in line with the government’s guidelines and approach to slow the spread of the virus. Additionally, the application does not indicate whether the applicant was agreeable to a site visit.



**Figure 1:** Taken from the application showing the locations of the Platinum Dairies dairy platform in relation to the Muir Block.

### Soils and Physiographic Zones

Soils	Soil Type	Vulnerability Factors		
		Structural Compaction	Nutrient Leaching	Waterlogging

<sup>1</sup> Defined in the NES-F 2020 as the period that started on 1 July 2014 and ended with the close of 30 June 2019.

	Woodlands	Moderate	Slight	Moderate
	Pukemutu	Severe	Slight	Severe
	Dacre	Moderate	Slight	Severe
<b>FDE land classification</b>	Category A – Artificial drainage Category B – Impeded drainage or low infiltration rate			
<b>Physiographic Zones</b>	Gleyed (100%)			

Soils in the Gleyed physiographic zone are poorly drained and prone to water logging. The soils may accumulate and store nitrogen during summer and early autumn months when soil moisture levels are low. This accumulated nitrogen starts moving with water when soils become wet in late autumn and winter and may be lost via artificial drains or overland flow. However, some nitrogen will be removed from the soil and aquifers via denitrification, resulting in relatively low groundwater nitrate concentrations.

### **Groundwater quality**

There are two groundwater monitoring bores on the property, E46/0315 (3.6m deep) which showed 0.2mg/L when it was tested once in May 1998, and E46/0175 (13.3m deep), which was tested 7 times between May 2002 and April 2006 and showed nitrate nitrite levels ranging between 0.20mg/L and 0.44mg/L. The next closest monitoring bores are on the neighbouring property located directly south, E46/0705 and E46/0759, both of which are 30m deep and showed groundwater nitrate levels of 0.06mg/L and 0.13mg/L, respectively, when the bore driller tested them both in October 2006. There is another monitoring bore located 4.7m south, E46/0441 (10m deep), which has been tested 17 times between Dec 2012 and Nov 2021 which shows groundwater nitrate levels ranging between 0.01mg/L and 0.06mg/L except for one test in April 2014 which returned a groundwater nitrate result of 6.2mg/L.

### ***Adverse effects of the proposed activities on the environment***

Consideration of the following effects is required:

- effects on water quality;
- effects on water quantity;
- soil health; and
- odour.

### ***Water Quality***

#### **Discharge**

Potential adverse effects of discharging effluent onto land include contamination of groundwater and contamination of surface waterways. The applicant has proposed good management practices that will be adopted to minimise adverse effects arising from the activity:

- Storage of effluent in the pond when conditions are not suitable for discharge;
- Adhering to buffer distances from surface waterways and bores;
- Avoiding placing effluent applicators directly over tile drains (the discharge area has extensive tile drainage);
- Application of effluent at low rates and depths; and
- Use of a slurry tanker as required.

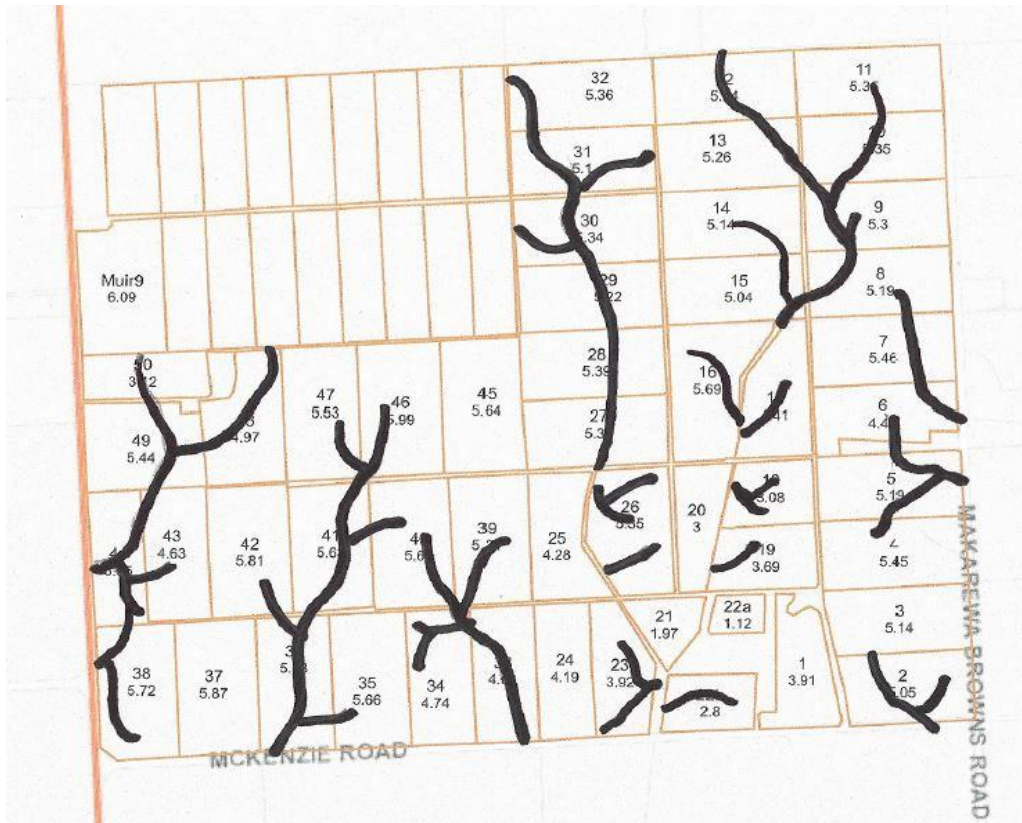


Figure 2: Taken from application, tile drain location map of the dairy platform.

#### Land Use – Expanded dairy farm

The applicant has provided nutrient budgets of the current scenario and proposed scenario as required by Part B section 4 of Appendix N in the proposed Southland Water and Land plan. These budgets have been created by Miranda Hunter, who is a Certified Nutrient Management Advisor, using the Overseer Software.

	Dairy platform current	Muir block current	Dairy + Muir current	Proposed scenario	Difference (%)
N Loss to water (kg/ha/yr)	55	57	56	52	-7.1%
N Loss to water (kg/yr)	14,125	3,517	17,642	16,541	-6.2%
P Loss to water (kg/ha/yr)	1.4	1.0	1.3	1.3	0%
P Loss to water (kg/yr)	358	61	419	399	-4.8%

The table below outlines the good management practices (GMPs) and mitigation measures which have either occurred or are proposed to be undertaken on farm. Each GMP/mitigation has a varying degree of effectiveness in terms of nitrogen, phosphorus, microbes (e.g. E. coli) and sediment loss. The mitigation measures and GMPs for the landholding have been selected based on specific characteristics of the physiographic zones and key contaminant pathways present.

Mitigation/GMP	Implementation timeframe	Mitigation measure or GMP?
Fence off all waterways	Done	Good management practice
Plant all riparian margins	Done	Good management practice

Remove R2 jersey bulls from Muir Block	Bulls were sent to slaughter in June 2021	<b>Mitigation Measure</b>
Provide sufficient effluent storage to enable deferred application	Pond is adequately sized	Good management practice
Defer effluent application when soil conditions are unsuitable	Currently happens	Good management practice
Minimising run-off from tracks, gateways, and crossings by ensuring they are designed and maintained adequately	4 stock crossings / culverts with built-up sides to prevent run-off to water. Recent work to rock gateways has occurred.	Good management practice
Use of multiple barns and pads to take cows off pasture during adverse weather	Currently occurs	Good management practice
Apply effluent at low rates and depths	Clean green pods and maxi pods used	Good management practice
Avoid placing effluent irrigators directly over tile drains	From first exercise of new consent	Good management practice
Decrease in crop area from permitted baseline of 18.8ha to 10ha	47% reduction in crop area from first exercise of consent	<b>Mitigation Measure</b>
Re-sow bare soils as soon as possible	From first exercise of new consent	Good management practice
Back fence stock off land that has already been grazed	From first exercise of new consent	Good management practice
Use portable water troughs and portable feeders when supplementary feed is fed on crop paddocks.	From first exercise of new consent	Good management practice
Mob sizes less than 120 cattle when intensively winter grazing	From first exercise of new consent	Good management practice
CSAs are identified and protected	CSA in paddock 19 filled and drained. CSA is paddock 15 permanently fenced.	GMP and <b>Mitigation measure</b>
Reduction in synthetic fertiliser use to less than 190kg/ha/yr	From first exercise of new consent	Good management practice
Avoid applying fertiliser to excessively dry, saturated or when soil temp is less than 7 degrees	From first exercise of new consent	Good management practice
Reducing Olsen P levels from 35 to 30	From first exercise of new consent	Good management practice

The table above shows which measures are identified as mitigations and which are GMPs. Overseer assumes that GMPs are being used, which means some of the GMPs are already accounted for in Overseer. Others are not accounted for in Overseer and are therefore not taken into account by the budget, and so they can be considered a mitigation as they represent something additional that the applicant is putting in place to mitigate the effects.

In light of the Government's Science Advisory Panel's review of the effectiveness of Overseer in assessing and predicting farm-scale nitrogen losses, and the conclusion that the current Overseer model is not fully

fit for purpose in the way it is being currently used in the consenting process, mitigation measures are of the utmost importance when assessing this application. This is because they represent additional steps that can be taken to offset or compensate for the effects of the change or intensification of land use. Those crucial mitigations are:

- Decreasing the intensive winter grazing crop area by 47%
- Removing the R2 Jersey bulls from the Muir Block
- Permanently fencing off paddock 15 CSA.

### **Nitrogen**

The budgets show that the N losses on the landholding are expected to decrease by 1,101kg/year or -6.2% when the 61.5ha Muir Block is amalgamated into the platform in comparison with the current scenario. Due to the nature of the landholding's soils the risk of nitrogen leaching through the soil to groundwater is low. However, there is a risk of nitrogen being transported to surface water via overland flow and artificial drainage as it can build up during summer in the soil and become mobilised in late autumn and winter when soil moisture levels rise.

### **Phosphorus**

The budgets show that the P losses on the landholding are expected to decrease by 20kg/year or -4.8kg/ha when the 61.5ha Muir Block is amalgamated into the platform in comparison with the current scenario. However, some of the good management practices identified above are not recognised by Overseer and will relate directly to mitigating P losses. Reasons that the P losses are expected to be lower than those modelled include:

- Overseer assumes that 30% of the P on laneways is lost to water, which means additional laneways would automatically result in an increase of P losses. However, there are no waterways on the Muir Block.
- Overseer does not account for mitigation measures within a block, such as erecting fencing around CSAs (paddock 15) and swales to prevent any point source discharges occurring; and
- The waterways on the property are already fenced and contain a 2-3m grass buffer.

Overall, the application has identified the loss of P and N via overland flow is of higher concern than leaching of N to groundwater. Therefore, the applicant needs to focus on GMPs and mitigation measures that reduce overland flow. If consent was granted, any GMPs and mitigations detailed in the application that have not been implemented yet are likely to be imposed as consent conditions and will ultimately result in a reduction in contaminant losses and, in theory, an improvement in water quality.

### **Water Quantity**

The applicant is proposing to keep their daily abstract volume at the currently consented volume of 120m<sup>3</sup>/day and their yearly volume of 43,800m<sup>3</sup>/year. Both the daily and yearly take are the equivalent of 120L/cow/day. This is considered industry standard of efficient use for shed and stock water use. The groundwater zones from which the water would be taken (Lower Oreti and Makarewa in both the RWP and pSWLP) are not over-allocated and the proposed abstraction is already included in the current allocation. The rate of abstraction is 2L/sec from bores E46/1145 and E46/0175. The closest waterway to the abstraction bores is a tributary of the Makarewa River located 168m west of bore E46/0175 and 1.1km east of bore E46/1145. With the bores being located some distance from the tributary and the proposed maximum rate of abstraction of 2L per second, no hydraulic connection to this tributary is expected. Therefore, I consider the effects on water quantity, such as over-allocation and stream depletion, are less than minor.

### **Soil Health**

The liquid effluent disposal field is proposed to remain at the currently consented area (212ha) with no effluent proposed to be discharged onto the new Muir block. The proposed discharge area is more than the area needed to meet the minimum requirement of 4 hectares per 100 cows, which is calculated to achieve



a maximum loading of 150 kg of nitrogen/hectare/year from effluent irrigation and more than the 8 hectares per 100 cows as recommended in the Best Practice Guidelines Booklet<sup>2</sup>.

### **Odour**

As long as the effluent is applied in accordance with the specified application rates and depths, and the buffers specified by recommended consent conditions are maintained, then there should be little risk of adverse effects from odour and spray drift on surrounding land owners and occupiers. Effluent storage and wintering facilities can cause problems with odour, however, the closest dwelling on another property is located over 400m from the effluent storage pond and 300m from all the barn/pad facilities. Additionally, all facilities are more than 150m from the property boundary. A recommended condition of consent requires that the stored or discharged agricultural effluent shall not cause any odour beyond the boundary of the site that is offensive or objectionable.

### **Adverse effects that have been disregarded**

Policy 39 of the proposed Southland Water and Land Plan states:

*“When considering any application for resource consent for the use of land for a farming activity, the Southland Regional Council should consider all adverse effects of the proposed activity on water quality, whether or not this Plan permits an activity with that effect”.*

As such, **all effects** related to the use of land for farming and the associated activities undertaken as part of the entire farming operation have been considered, and **no effects have been disregarded**.

### **Planning provisions (policies and objectives) relevant to adverse effects**

A policy assessment has been included in the consent application. I have reviewed this assessment and also examined the relevant planning documents. The following are the most relevant provisions:

- National Policy Statement for Freshwater Management 2020 (NPS-FM)
  - Objective 1 seeks to ensure that natural and physical resources are managed in a way that prioritises first, the health and well-being of water bodies and freshwater ecosystems, second, the health needs of people, third, the ability of people and communities to provide for their social, economic, and cultural well-being, now and in the future.
  - Policy 1 seeks to manage freshwater in a way that gives effect to Te Mana o te Wai.
  - Policy 2 seeks to actively involve Tangata Whenua in freshwater management and Māori freshwater values are identified and provided for.
  - Policy 3 seeks to manage freshwater in an integrated way that considers the effects of the use and development of land, including the effects on receiving environments.
  - Policy 9 seeks to protect the habitats of indigenous freshwater species.
  - Policy 11 seeks to ensure freshwater is allocated and used efficiently, all existing over-allocation is phased out and future over-allocation avoided.
  - Policy 15 seeks to enable communities to provide for their social, economic, and cultural well-being in a way that is consistent with the NPS.
  
- Proposed Water and Land Plan 2018 (pSWLP)
  - Objective 1 - Land and water and associated ecosystems are sustainably managed as integrated natural resources, recognising the connectivity between surface water and groundwater, and between freshwater, land and the coast

---

<sup>2</sup> Farm Dairy Effluent, Best Practice Guidelines (2007), Environment Southland Notification memorandum

- Objective 2 - The mauri of water provides for te hauora o te taiao (health and mauri of the environment), te hauora o te wai (health and mauri of the waterbody) and te hauora o te tangata (health and mauri of the people).
- Objective 3 - Water and land are recognised as enablers of the economic, social and cultural wellbeing of the region.
- Objective 4 - Tangata whenua values and interests are identified and reflected in the management of freshwater and associated ecosystems
- Objective 6 - Water quality in each freshwater body, coastal lagoon and estuary will be maintained where the water quality is not degraded and improved where the water quality is degraded by human activities.
- Objective 8 - The quality of groundwater that meets both the Drinking Water Standards for New Zealand 2005 (revised 2008) and any freshwater objectives, including for connected surface water bodies, established under Freshwater Management Unit processes is maintained. The quality of groundwater that does not meet those standards and objectives because of the effects of land use or discharge activities is progressively improved so that groundwater meets the Drinking Water Standards for New Zealand 2005 (revised 2008) and any freshwater objectives and freshwater quality limits established under Freshwater Management Unit processes.
- Objective 11 - The amount of water abstracted is shown to be reasonable for its intended use and water is allocated and used efficiently.
- Objective 12 - Groundwater quantity is sustainably managed, including safeguarding the life-supporting capacity, ecosystem processes and indigenous species of surface water bodies where their flow is, at least in part, derived from groundwater.
- Objective 13 - Provided that the quantity, quality and structure of soil resources are not irreversibly degraded through land use activities or discharges to land; and the health of people and communities is safeguarded from the adverse effects of discharges of contaminants to land and water; and ecosystems (including indigenous biological diversity and integrity of habitats), are safeguarded, then land and soils may be used and developed to enable the economic, social and cultural wellbeing of the region.
- Objective 18 - All persons implement environmental practices that optimise efficient resource use, safeguard the life supporting capacity of the region's land and soils, and maintain or improve the quality and quantity of the region's water resources.
- Policy 6 seeks to avoid, remedy, or mitigate adverse effects on water quality from contaminants in the Gleyed and Lignite/Marine Terraces Physiographic zones by requiring implementation of GMPs to manage contaminants transported via artificial drainage, and overland flow where relevant and having particular regard to adverse effects from these contaminant pathways when assessing resource consent applications and Farm Environmental Management Plans;
- Policy 13 seeks to manage land use activities to enable the achievement of Policies 15A, B and C;
- Policy 15A-C seek to main water quality where standards are met and improve water quality where standards are not met;
- Policy 16 seeks to minimise the adverse environmental effects, including cumulatively, on groundwater and surface water quality from farming activities and require all farming activities to implement a Farm Environmental Management Plan.

➤ Te Tangi a Taurira (2008)

- Policy 3.5.1.3 seeks to ensure all discharges of dairy farm effluent to land must have a resource consent.
- Policy 3.5.1.8 requires best practice for land application to manage farm effluent in order to minimise adverse effects on the environment.
- Policy 3.5.1.11 seeks to avoid any surface run off/overland flow, ponding or contamination of water resulting from the application of dairy shed effluent to pasture.

- Policy 3.5.1.14 requires a buffer of at least 100m be established between discharge activities and bores.
- Policy 3.5.1.15 seeks that all spray drift be managed and contained within the boundaries of the consent area.
- Policy 3.5.10.3 seeks to protect and enhance the mauri, or life supporting capacity, of freshwater resources throughout Murihiku.
- Policy 3.10.5.5 seeks to promote the management of freshwater according to the principle of ki uta ki tai, and thus the flow of water from source to sea.
- Policy 3.5.11.6 requires that rivers recognised as Statutory Acknowledgments be recognised for their special associations to Ngāi Tahu beyond the expiry date of 20 years.
- Policy 3.5.11.14 seeks to use riparian enhancement, buffer zones, fencing, and related streamside management tools as conditions of consent to ensure that human use of rivers and their water does not compromise river health.
- Policy 3.5.13.1 seeks to ensure the role of Ngāi Tahu ki Murihiku as tangata whenua and kaitiaki of water must be recognised and provided for in all water quality management.
- Policy 3.5.13.7 ensures when assessing the effects of an activity on water quality, where the water source is in a degraded state, the effects should be measured against the condition that the water source should be, and not the existing condition of the water source.
- Policy 3.5.13.8 promote the restoration of wetlands and riparian areas as part of maintaining and improving water quality, due to the natural pollution abatement functions of such ecosystems.
- Policy 3.5.14.4 prefers, in the Southland Plains region, water takes are from bores, as opposed to surface water abstractions.
- Policy 3.5.14.11 seeks to avoid excessive drawdown of aquifer levels as a result of groundwater abstractions.
- Policy 3.5.19.3 seeks to promote riparian zone establishment and management as a tool to improve water quality in the waterways of Murihiku.

There is clear policy direction in the pSWLP that water quality should be maintained or improved where water quality is degraded by human activities. The water quality in the receiving environment is degraded, in particular the Makarewa River at Wallacetown sits in the worst 25% of all sites for all water quality indicators including E.coli, Total Nitrogen and Total Phosphorus<sup>3</sup>.

The applicant has offered a limited number of mitigations in an attempt to mitigate the adverse effects, however the applicant has confirmed the jersey bulls were bought on the Muir block in April and then sold to the meats works in June as a “one-off situation due to market prices”. Therefore the jersey bulls are not considered dairy support cattle<sup>4</sup> and the purchasing and selling of cattle to the works (such as bull beef) is not a regulated activity. This means the applicant can purchase any number of beef cattle (such as jersey bulls) and run them on the Muir block at any time of the year as a permitted activity. As a result, this mitigation offers limited reassurance that it will avoid, remedy or mitigate any actual or potential adverse effects that arise from the proposal.

Another mitigation the applicant is proposing is to winter 100 cows on 10ha of crop. This is a decrease in cows wintered on farm and a decrease in crop area from which the applicant could intensively winter graze as a permitted activity. However, this decrease in cows wintered on farm, paired with the increase in peak milking herd number, results in approximately 88% more cows being displaced to a third party grazier when compared to the maximum cows that were wintered on the landholding in July – August 2020. This

---

<sup>3</sup> <https://www.lawa.org.nz/explore-data/southland-region/river-quality/oreti-river/winton-stream-at-lochiel/>

<sup>4</sup> Defined in the NES-F as cattle that are farmed for producing milk, but are not being milked and are grazed on land that is not grazed by dairy cattle.

displacement of cows during winter may result in new, additional or further intensified land use for dairy support and/or intensive winter grazing of dairy cows elsewhere.

Another mitigation which has already occurred on farm is the protection of a CSA identified in paddock 15 in the FEMP. This CSA has been permanently fenced but has not been planted out with anything other than the already existing dairy pasture. Fencing is beneficial in terms of excluding stock, however planting the area in native wetland plants would increase biodiversity on the farm and capture larger amount of contaminants contained in water moving overland during wet weather compared to pasture. Additionally, another CSA was identified in paddock 19 in the FEMP. According to the applicant, this area has been drained, filled in, sown in grass and temporarily fenced to have stock excluded from the area. It will remain temporarily fenced and stock will not be allowed into this area until November 2022 to allow time for the grass to grow/develop. The applicant anticipates that it won't be until 2023 that the area will be put into permanent pasture/productive land. Unfortunately, CSAs are natural landscape features and tend to be the area that becomes wet first and stays wet the longest. The drain that has been installed will transport sediment, nutrients and bacteria to the closest surface waterway and cumulatively add to the contaminant loads in the Makarewa River.

The only other mitigation that offers reassurance that there will be a reduction in nitrogen and phosphorus losses to freshwater is incorporating a limit of N and P loss per hectare into consent conditions along with ongoing modelling and subsequent reporting of N and P losses for the duration of the consent term. This type of mitigation is of less value than it once was due to the Science Advisory Panel's peer review report on Overseer which was released on 11 August 2021.

The NPS-FM has 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.

Giving effect to Te Mana o te Wai means the first priority is to protect the life supporting capacity and wellbeing of water. The applicant's proposed mitigations will not fully mitigate all of the potential or actual adverse effects on freshwater and as a result I consider that the proposal is inconsistent with the hierarchy of obligations above. Notably the application is lacking mitigations that prioritise and protect the health and well-being of the surface water bodies, such as planting riparian buffers with native species, retiring high risk land, installing a wintering facility, incorporating plantain into their re-grassing programme, creating wetlands and installing sediment traps at surface water outfalls, that the overland contaminant pathways flow to and the extensive tile drains system within the Muir block drain to.

### ***Conclusion: significance of adverse effects on the environment***

The above objectives and policies have been used to inform and determine the level of adverse effects associated with the proposed activity, as the direction of the policies help establish what effects are acceptable and therefore whether the adverse effects of the proposed activities are less than minor, minor or more than minor.

The applicant has demonstrated that there will be sufficient storage available in the effluent storage pond when the land is not suitable to discharge effluent to. The pond is also synthetically lined, has a leak detection system and was authorised by AUTH-302425. The effluent system also consists of a 100m<sup>3</sup> hypond which has been visually inspected to ensure it has no holes, cracks or defects that would allow effluent to leak from the structure. The visual inspections have also been reviewed by a CPEng. Also effluent can be discharged at low rates and depths which is consistent with the key policies in avoiding and mitigating effects on water quality. The water abstraction volume is considered efficient and reasonable

for its end use which is consistent with key water quantity policies. The three pads/barns allow the applicant to stand cows off pasture during adverse weather, the solid effluent generated on the pads/barn is discharged as a permitted activity and the liquid effluent is collected in the effluent system, which ensures it can be managed and will not flow beyond the perimeter of the pads/barns.

The use of information for the current dairy platform and Muir Block nutrient budgets is based off the 2020/2021 season as opposed to the 2019/2020 season, which would normally be a better representation of what was happening on the landholding with regard to contaminant loss limits as at 2 September 2020. The applicant has used 2020/2021 season data because the landholding was in a transitional phase of increasing the milking herd number for the start of the 2020/2021 milking season (August) and taking over the Muir Block. They consider the 2020/2021 season the most representative of what was happening on farm as at 2 September 2020 because the increase in milking herd numbers would not be shown in a year end 2020 budget which concludes in June. However, a transitional current scenario budget further reduces the reliance that can be placed on the use of Overseer outputs to satisfy the conditions of Regulation 30 of the NES-F as this is one of the models limitations. That being the model assumes the farm is at near equilibrium conditions where there is minimal change each year.

While the increase in herd size to 1000 cows is a permitted activity and will result in a decrease in stocking rate and nutrient losses over the landholding as a whole could decrease under the proposal, localised losses will increase as a result of the intensification of land use on the Muir block. There will be an increase in losses from the Muir block into the Tomoporakau Creek, which ultimately drains to the Makarewa River, which will, especially considered cumulatively, result in addition nutrients and contaminants entering the localised receiving environment. Increased losses result in increased contaminant loadings in waterways which can cause a number of issues, including nuisance algal growth, over sedimentation and eutrophication. The localised effects of the change of land use have not been adequately assessed for the proposal and therefore I do not have enough information to determine that the effects of the proposal on the localised receiving environment (relative to the Muir Block) will be less than minor.

Furthermore, as the Muir block was only used to graze cattle on a maximum of 9.7ha during the reference period, any grazing of dairy support cattle on more than 9.7ha of the 61.5ha block since the applicant purchased it in December 2019 would be an unlawful activity if it occurred after the applicant's section 20A (of the RMA) continuance rights expired 6 months after the NES-F became operative on the 3 September 2020.

Lastly, no consultation has been undertaken with iwi who hold mana whenua of the area. This is inconsistent with Policy 2 of the NPS-FM and multiple policies within the Te Tangi a Taurira plan. In the absence of detail in the application and AEE of the potential cultural effects of the proposal I am unable to conclude on the scale of potential effects on cultural values. However, in light of my conclusions above, I consider that there is risk of more than minor adverse effects on cultural values.

I consider the adverse effects from the discharge of agricultural effluent to land, the daily abstraction of groundwater and the use of land for multiple pads and barns will be less than minor. However, as a result of the above, I consider that the adverse effects from the proposed expansion of a dairy farm will be more than minor.

**Recommendation and decision**

**10. Officer's recommendation**

<b>10.1</b>	<b>The application be processed non-notified</b>	<input type="checkbox"/>
<b>10.2</b>	<b>Public notification is required/recommended</b>	<input checked="" type="checkbox"/>

10.3	The application be placed on hold while the applicant tries to obtain written approvals from the affected persons	<input type="checkbox"/>
10.4	Limited notification is required. Persons to be served notice are those listed in 8.2	<input type="checkbox"/>



Jade McRae  
Senior Consents Officer

Date: 8 March 2022

**Decision under Delegated Authority**

11.1	I agree with the recommendation	<input checked="" type="checkbox"/>
11.2	The application will be processed non-notified	<input type="checkbox"/>
11.3	The application will be publicly notified	<input checked="" type="checkbox"/>
11.4	The application shall be placed on hold while the applicant tries to obtain written approvals from the affected persons	<input type="checkbox"/>
11.5	The application will be limited notified. The parties to be served notice are those listed in section 8.2	<input type="checkbox"/>

This decision is made under delegated authority by:



Paul Hulse  
General Manager Integrated Catchment Management

Date: 11 March 2022