

Before Commissioner Bianca Sullivan
Via Zoom digital link

6 July 2022
9.00 am

Staff Report for Hearing

The recommendation in the staff report represents the opinion of the writer and it is not binding on the Hearing Commissioner. The report is evidence and has no greater weight than any other evidence that the Commissioner will hear and consider.

Hearing of Application – APP-20211740

Platinum Dairies Limited

Compiled by Jade McRae, Senior Consents Officer

Applicant: Platinum Dairies Limited

Application Number: APP-20211740

Location: 149 McKenzie Road, Lochiel

Activities for Consent: See Table 1 (below). A consent term of 10 years is sought for all consents.

Notification: The application was limited notified on 21 March 2022.

Table 1: Consents Sought

Consent Type	Purpose
1. Discharge Permit	To discharge agricultural effluent to land from up to 1,000 cows
2. Water Permit	To take and use 120,000 L/day of groundwater
3. Land Use Consent	To use land for three calving pads
4. Land Use Consent	To use land for farming in the form of a dairy farm expansion

1. Introduction

1.1 Status and purpose of this report

- 1.1.1 This report has been prepared under Section 42A of the Resource Management Act 1991 (RMA or Act) to assist the Hearing Commissioner in the hearing of the application for resource consent made by Platinum Dairies Limited. Section 42A allows local authorities to require the preparation of such a report on an application for resource consent and allows the report to be considered at any hearing conducted by the local authority.
- 1.1.2 In accordance with s42A (1A) and (1B), material contained within the application documentation is largely referenced rather than repeated where it is efficient to do so.
- 1.1.3 The purpose of the report is to assist the Hearing Commissioner in making a decision on the application.

1.2 About the author

- 1.2.1 My name is Jade Linda McRae. I am a Senior Consents Officer employed by the Southland Regional Council. I have been employed by the Council firstly as a Consents Officer, and now Senior Consents Officer, since January 2019.
- 1.2.2 I hold the qualifications of Bachelor of Science majoring in Zoology and Psychology and a Certificate in Sustainable Nutrient Management in New Zealand Agriculture (intermediate Overseer). I am an accredited decision-maker through the Ministry for the Environment Making Good Decisions course and an Associate member of the New Zealand Planning Institute.
- 1.2.3 I have been involved with the application since the application was lodged and received by Council on 7 December 2021. I have also visited the site on 25 May 2022.
- 1.2.4 For completeness, I have read the Environment Court of New Zealand Practice Note 2014 Code of Conduct for expert witnesses and agree to abide by it.

1.3 Information relied on in preparation of this report

- 1.3.1 In preparation of this report I have had regard to the following documents:

- resource consent application;
- further information requested under Section 92(1) of the RMA;
- report commissioned under Section 92(2) of the RMA;
- the submission on the application;
- relevant statutory instruments including:
 - Resource Management Act 1991 (RMA or Act);
 - National Environmental Standards for Freshwater Regulations 2020 (NES-F);
 - National Environmental Standards for Sources of Human Drinking Water Regulations 2007 (NES-SHDW);
 - National Policy Statement on Freshwater Management 2020 (NPS-FM);
 - Southland Regional Policy Statement 2017 (RPS);
 - Regional Water Plan for Southland, 2010 (RWPS);

- Proposed Southland Water and Land Plan, 3 April 2018 (Decisions Version – with Appeals) (PSWLP);
- Environment Court Decisions on the Proposed Southland Water and Land Plan;
- Te Tangi a Taurira (Iwi Management Plan) 2008.

1.4 Attachments

1.4.1 The following attachments form part of this report:

- Attachment 1: Irricon Resource Solutions OVERSEER Nutrient Budget Review Report on behalf of Council
- Attachment 2: s92(1) Further information response
- Attachment 3: Jenny Campbell & Dave Kennedy submission
- Attachment 4: Amended application following site visit
- Attachment 5: Draft consent conditions

2. The application and procedural matters

2.1 The proposed activities

2.1.1 Consents have been sought as follows:

Applicant: Platinum Dairies Limited

Application Number: APP-20211740

Activities for consent is sought:

Discharge Application:

To discharge agricultural effluent to land from milking up to 1,000 cows via low rate pods and slurry tanker onto 213 ha.

Water Take Application:

To take and use 120 m³/day of groundwater for stock drinking and dairy shed wash down.

Land use Application:

To use land for three calving pads.

Land use Application:

To use land for farming in the form of a dairy farm expansion.

2.2 Summary of the Proposal

2.2.1 The proposed activities are outlined in the submitted applications. However, by way of brief summary, the applicant is proposing to renew its current discharge and water permits (AUTH-302423 and AUTH-302424), which expire on 6 September 2024 and 1 October 2023, respectively, as well as expand the dairy farm by increasing the peak milking herd by 140 cows and incorporating a 61.5 ha block, known as the Muir block, into the dairy platform. It also requires land use consents for three existing calving pads, two of which have covered barns adjacent to them, which can accommodate up to 120 cows each.



Figure 1: Map showing the locations of the Dairy Platform (orange) and the Muir Block 2 (yellow) which is proposed to be incorporated into the dairy platform.

2.3 Regional Planning Framework

- 2.3.1 Resource consents for the above activities are required under the National Environmental Standards for Freshwater, the Regional Water Plan (RWP) and the proposed Southland Water and Land Plan (pSWLP).
- 2.3.2 An application for resource consents was lodged with Environment Southland in accordance with these requirements.
- 2.3.3 I generally concur with these assessments and summarise these as follows in Table 2 below. I note that the rules in the Proposed Plan (PP in the table below), which are subject to appeal, are highlighted in grey.

Table 2: Activity Status of Consents Sought

Activity	Relevant Rule	Activity Status
To discharge dairy shed from up to 1,000 cows and calving pad effluent from up to 150 cows to land via low rate pods and slurry tanker.	OP: Rule 50: Discharges of dairy farm effluent to land	Restricted Discretionary activity
	PP: Rule 35: Discharge of agricultural effluent to land	Discretionary activity
To take and use 120,000 L per day of groundwater for the purpose of stock drinking and dairy shed wash down.	OP: Rule 23: Abstraction and use of groundwater	Discretionary activity
	PP: Rule 54: Abstraction and use of groundwater	Discretionary activity
To use land for three calving pads with covered barns which accommodate up to 120 cows each.	NES: Regulation 14: Stockholding Areas	Discretionary activity
	PP: Rule 35A: The use of land for Feed pads/lots	Discretionary activity
To use land for farming in the form of a dairy farm expansion.	NES: Regulation 19: Conversion of land on farm to dairy farm land	Discretionary activity
	PP: Rule 20: The use of land for a farming activity	Discretionary activity

- 2.3.4 As the applications are bundled, the overall activity status is a **discretionary activity**.
- 2.3.5 Under Section 104B the Council may grant or refuse consent for a **discretionary activity**, and if it grants the application, may impose conditions under Section 108 of the RMA.

2.4 Further information request

- 2.4.1 Pursuant to Section 92(2) of the RMA, a request to commission an audit of, and report on, the Overseer nutrient budgets was sent to the applicant on 22 December 2021.
- 2.4.2 The applicant agreed to the commissioning of the report on 19 January 2022.
- 2.4.3 The report was received 26 January 2022 for the purpose of s92(2) is the OVERSEER Nutrient Budget Review report authored by Nicky Watt from Irricon Resource Solutions and is attached.

2.4.4 Further information was requested from the applicant on 9 February 2022 in accordance with Section 92(1) of the RMA. The following information was requested:

- a) *Confirmation of the annual water abstraction volume.*
- b) *Donna Corbin has estimated the size of each barn and pad area in her visual inspection report. Can you confirm these estimations are correct?*
- c) *A Dairy Effluent Storage Calculator (DESC) that accurately reflects the proposal. I am requesting this information because the application states no milking between 20 June and 20 July, however the DESC supplied with the application has the milking season as 25 July – 5 June.*
- d) *An explanation as to where the R1s and R2s were grazed in the past and where they will be grazed for the proposal? I am requesting this information because it is my understanding the Muir block has been used to graze replacement heifers in 2019 and displacing this stock may result in an increase in contaminant losses in another catchment due to new, additional or further intensified land use for dairy support and/or wintering of young stock elsewhere.*
- e) *Please provide a discussion on where the 23 R2 Jersey bulls originated from, where they went to once they were removed from the farm in June and what was their purpose in life? Were these bulls used for mating? I am requesting this information in order to understand the extent of the effects of the proposal and if there is any displacement of contaminant losses to another catchment.*
- f) *Confirmation that only 100 cows will remain on farm during winter? I am requesting this information in order to understand the extent of the effects of the proposed intensive winter grazing activity.*
- g) *Please provide a discussion on where the remaining 900 mature age milking cows go for winter? Do they go to a third party grazier or does the applicant have a run-off block that would make up part of the landholding? I am requesting this information because it is my understanding the Muir block has been used to intensively winter graze the milking cows in 2018 and 2019 and displacing this stock may result in an increase in contaminant losses in another catchment due to new, additional or further intensive winter grazing elsewhere.*
- h) *An explanation as to how the proposed 10 ha of intensive winter grazing will meet regulation 26(4)(d) of the National Environmental Standards for Freshwater with regard to livestock being kept 5 m away from any tile drain whilst intensive winter grazing? I am requesting this information because the tile drain map supplied with the application shows a very extensive network of tile drains within both the current dairy platform and the Muir block.*
- i) *Page 53 & 54 of the FEMP identify some future Riparian Planting options and also suggests developing a riparian planting plan. Can you please confirm if a riparian planting plan is going to be developed and implemented? I am requesting the above information to clarify and define what mitigations are proposed to contribute towards mitigating the adverse effects of the proposed activity, in order to appropriately assess the effects of the activity.*

- j) *An assessment of the proposal against s104D of the RMA. The application includes an assessment against s104B and 104C, however when the activities are bundled the overall status of the application is non-complying.*
- k) *Address the concerns raised by the Nutrient Budget auditor in the attached review. I am requesting this information because inputting incorrect information into the nutrient budgets will change the predicted nutrient losses to water.*

2.4.5 The above information was provided by the applicant (attached) on 23 February 2022.

2.5 Notification and Submissions

2.5.1 The application was publicly notified on 21 March 2022.

2.5.2 One submission was received. This is included in the appendices, and summarised as follows:

Table 3: Summary of Submissions

Submitter	Oppose/Support	Issues/comments	Decision Sought	Wish to be heard at hearing?
Jenny Campbell & Dave Kennedy	Oppose	Inadequate mitigation measures. No consideration of climate change. Degraded groundwater quality. Inconsistent with the NPS-FM, RPS, pSWLP and s7 of the RMA. Lack of consultation with iwi.	Decline the application	Yes

2.6 Section 99 pre-hearing meeting

2.6.1 No pre-hearing meeting was held for the application, as no submitters indicated they wanted to partake in one.

3. Assessment

3.1 Statutory Considerations

3.1.1 Section 104 of the Act sets out the matters to be considered when assessing an application for a resource consent. Section 104(1) of the Resource Management Act, 1991, states:

- (1) *When considering an application for a resource consent and any submission received, the consent authority must, subject to Part 2, have regard to:*
 - (a) *any actual and potential effects on the environment of allowing the activity;*
and
 - (b) *any relevant provisions of:*
 - (i) *a national environmental standard:*
 - (ii) *other regulations:*
 - (iii) *a national policy statement:*

- (v) *a regional or proposed regional policy statement;*
- (vi) *a plan or proposed plan; and*
- (c) *any other matter the consent authority considers relevant and reasonably necessary to determine the application.*

3.1.2 Those matters which are relevant for this application are discussed in the following sections as follows:

- description of the receiving environment;
- assessment of the actual and potential effect of the activity on the environment;
- relevant provisions of the Regional Water Plan and the Proposed Southland Water and Land Plan;
- relevant provisions of the Southland Regional Policy Statement;
- relevant provisions of the National Policy Statements and National Environmental Standards;
- Part 2 of the RMA.

3.1.3 Section 108 provides for consent to be granted subject to conditions and sets out the kind of conditions that may be imposed.

3.2 Description of the affected environment

3.2.1 The existing site is an operational dairy farm located approximately 5 km south of Winton township. Currently, the applicant holds discharge permit AUTH-302423 and water permit AUTH-302424. These permits expire on 6 September 2024 and 1 October 2023, respectively. The discharge permit authorises the discharge of dairy shed effluent from 1,000 cows onto 100 ha via K-line pods. The water permit authorises the abstraction of 120,000 L/day of groundwater.

3.2.2 The landholding is made up of the dairy platform and the Muir block. The applicant purchased the 61.5 ha Muir block from the neighbouring farm in December 2019. This parcel of land had been historically sheep farmed and 9.6 ha and 9.7 ha was used to intensively winter graze Platinum Dairies cattle in 2018 and 2019, respectively. The Muir block has never been included in a dairy platform. Since the purchase in 2019, the applicant has been using this block of land for grazing R2 jersey bulls and replacement heifers, cut and carry silage, growing winter crop, and intensively winter grazing a portion of the Platinum Dairies milking herd, which was undertaken by the previous owner in the reference period stipulated in the National Environmental Standards for Freshwater 2020 (NES-F). I undertook a site visit on 25 May 2022 and at that time some the Muir block was in swede crop and other paddocks had been recently cut for silage/baleage.

3.2.3 Soils and Physiographic Zones within the property are detailed in Table 4 below.

Table 4: Soil and Physiographic Zones with the Property

Soils	Soil Type	Vulnerability Factors		
		Structural Compaction	Nutrient Leaching	Waterlogging
	Pukemutu	Severe	Slight	Severe
	Woodlands	Moderate	Slight	Moderate
	Dacre	Moderate	Slight	Severe
Physiographic Zones	Gleyed (16%)			
FDE Land Classification	Category A – Artificial drainage Category B – Impeded drainage or low infiltration rate			

3.2.4 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.

3.2.5 *Groundwater quality* - There are two groundwater monitoring bore on the property, E46/0315 (3.6 m deep) which showed 0.2 mg/L when it was tested once in May 1998, and E46/0175 (13.3 m deep), which was tested seven times between May 2002 and April 2006 and showed nitrate nitrite levels ranging between 0.20 mg/L and 0.44 mg/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 0.06 mg/L and 0.13 mg/L, respectively, when the bore driller tested them both in October 2006. There is another monitoring bore located 4.7 m south, E46/0441 (10 m deep), which has been tested 17 times between December 2012 and November 2021, which shows groundwater nitrate levels ranging between 0.01 mg/L and 0.06 mg/L except for one test in April 2014 which returned a groundwater nitrate result of 6.2 mg/L.

3.2.6 *Surface water quality* - the surface water quality within the catchment 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 Phosphorus¹.

3.3 Actual and potential effects

3.3.1 Effects that must be disregarded (Section 104(2))

3.3.1.1 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”.

¹ <https://www.lawa.org.nz/explore-data/southland-region/river-quality/oreti-river/winton-stream-at-lochiel/>

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**.

3.3.2 Effects to be considered (Section 104(1)(a))

3.3.2.1 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 sufficiently sized effluent pond (total pond volume = 4,937 m³ and DESC 90th percentile requirement = 4,214 m³) when conditions are not suitable for discharge;
- the pond is synthetically lined, has a leak detection system and was authorised by resource consent AUTH-302425;
- adhering to buffer distances from surface waterways and bores;
- application of effluent at low rates and depths; and
- use of a slurry tanker as required.

Land Use – Expanded dairy farm

The applicant has provided nutrient budgets of the current scenarios and proposed amalgamated 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. Council commissioned Nicky Watt, who is a Certified Nutrient Management Advisor, to review the nutrient budgets for a “sensitivity check”. She has confirmed that the figures that have been used in the budgets are appropriate and that the Overseer Best Practice Data Input Standards have been followed.

Table 5 below shows the nutrient losses from the current dairy platform and current Muir block combined vs the proposed scenario of the Muir block amalgamated in to the dairy platform. A version change within Overseer occurred since the application was lodged resulting in changes shown in red below.

Table 5: Nutrient losses from the dairy platform and the Support blocks

	Dairy platform current (256.2ha)	Muir block current (61.5 ha)	Dairy + Muir current (317.7 ha)	Proposed scenario (317.7 ha)	Difference (%)
N Loss to water (kg/ha/yr)	54 55	57	55 56	51 52	-7.3% -7.1%
N Loss to water (kg/yr)	13,802 14,125	3,514 3,510	17,316 17,635	16,232 16,541	-6.3% -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	398 399	-5.0% -4.8%

Table 6 below outlines a number of standard good management practices (GMPs) and additional mitigation measures, which either currently occur 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 on farm. As a result, the application has identified the loss of P and N via overland flow is of higher concern than leaching of N to groundwater.

Table 6: Good Management Practices (GMPs) and mitigation measures which have either occurred or are proposed to be undertaken on-farm

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.	Mitigation Measure
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.	Mitigation Measure
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 18.8 ha to 10 ha.	47% reduction in crop area from first exercise of consent.	Mitigation Measure
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

Mitigation/GMP	Implementation timeframe	Mitigation measure or GMP?
CSAs are identified and protected.	Permanently fence and plant CSA in paddock 15 from first exercise of new consent.	Mitigation measure
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

Table 6 above shows which measures are identified as mitigations and which are GMPs. Overseer assumes some of the GMPs above 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, 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%;
- permanently fencing and planting a significant CSA in paddock 15;
- accommodating cows on pads and in barns during adverse weather;
- removing the R2 Jersey bulls from the Muir block;
- permanently fencing off paddock 15 CSA.

Nitrogen

Noting the concerns raised by the submitter in relation to groundwater quality and nitrate levels in groundwater, the budgets show that the N losses on the landholding are expected to decrease by 1,094 kg/year or -6.2% when the 61.5 ha Muir block is amalgamated into the platform in comparison with the current scenario.

The removal of the jersey bulls from the property is one measure the applicant has offered in order to mitigate N losses to water. However, this measure was necessary in order to provide capacity within the nutrient budget to increase the milking herd up to the currently consented maximum. This measure has actually resulted in a higher revised stock units (RSU) for the proposed scenario compared to the current scenario. The RSU for the landholding for the current scenario is 9,898, whereas the RSU for the landholding for the proposed scenario is 10,303. The applicant has confirmed the jersey bulls were purchased and then sold to the meat works as a “one-off situation due to market prices”. The jersey bulls are not considered dairy support cattle² and the grazing of beef cattle is not a regulated activity, which means the

² 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.

applicant could graze any number of beef cattle (such as jersey bulls) on the landholding at any time of the year as a permitted activity. However, in order to ensure this measure does mitigate adverse effects, a proposed consent condition has been included in the Land Use Consent for Farming which, if granted, would prevent the applicant from grazing any mature age female beef cows or mature age beef steers at any time of the year.

Wintering pads/barns is another measure that the applicant has offered to mitigate N losses to water. There are three calving pads on the property, two of which have adjacent covered areas. The pad with no adjacent covered area has nova flow drainage under the base, which captures any excess liquid effluent and drains to the effluent system. The applicant amended its application on 1 June 2022 (attachment 4) following discussions at the site visit on 25 May 2022. The amendments included the ability to use 500 mm of straw in the covered areas, as it was preferable over woodchip for cow and calf comfort purposes. I consider straw will be just as efficient as woodchip at absorbing effluent as there will be no excess stormwater to be absorbed in the covered areas. Additional straw can more easily be added to the covered areas of the pads, as opposed to wood chips, if the covered area does become damp with effluent in order to maintain a clean dry surface for the cows. All three pads/barns allow the applicant to remove cows from pasture and/or crop during a time of the year (spring) when soils are water logged and prone to compaction and pugging. The pads/barns also give the applicant the ability to house cows during adverse weather conditions such as snow or provide cows additional supplementary feed during a drought.

It is also worth noting that the applicant has decreased its synthetic nitrogen fertiliser use from 216 kg/ha on the platform down to below the 190 kg/ha/year cap set by Regulation 33 of the National Environmental Standards for Freshwater 2020. This is obviously a significant contributor to the decrease in N losses from the landholding, but I consider it should be regarded as a good management practice as opposed to a mitigation as it is a legal requirement of Regulations 32 and 33.

Phosphorus

The budgets show that the P losses on the landholding are expected to decrease by 20 kg/year or -4.8% when the 61.5 ha Muir block is amalgamated into the platform in comparison with the current scenario.

Decreasing its winter crop area is another measure the applicant has offered to mitigate N losses to water. The applicant has confirmed the maximum crop area that was used for intensive winter grazing³ within the reference period⁴ was 18.84 ha in 2018. This figure was comprised of 9.6 ha of swedes on the Muir block and 9.24 ha of fodder beet on the Platinum Dairies platform. Therefore, the applicant can continue to intensively winter graze up to 18.84 ha of crop as a permitted activity under Regulation 29 of the National Environmental Standards for Freshwater 2020. However, the applicant has proposed to drop its area of crop for the entire landholding down to 10 ha, which is a 47% decrease. Wintering cows in paddocks can cause compaction of soil, which reduces soil porosity and hydraulic conductivity and increases bulk density, particularly on fine textured soils which have become water-saturated (Luo & Ledgard, 2021)⁵. Fallow soil can run off into surface waterbodies carrying with it phosphorus and microbial

³ Defined in the NES-F as grazing of livestock on an annual forage crop between 1 May and 30 September of the same year.

⁴ Defined in the NES-F 2020 as the period that started on 1 July 2014 and ended with the close of 30 June 2019.

⁵ Luo, J. and Ledgard, S. (2021) New Zealand Dairy Farm Systems and Key Environmental Effects. *Frontiers of Agricultural Science and Engineering*, Vol 8, issue 1, pages 148–158

contaminants. As a result, a proposed consent condition has been included in the Land Use Consent for Farming which, if granted, would cap the intensive winter grazing crop area at 10 ha.

The applicant amended its application on 1 June 2022 (attachment 4) following discussions at the site visit on 25 May 2022. The amendments included permanently fencing and planting native plants in the significant CSA identified at the top of the main waterway in paddock 15. This is an important measure to mitigate P loss to water on this property, as there is only one waterway on the landholding and this particular CSA intercepts the overland flow drainage from a number of paddocks north of the beginning of this main waterway. This mitigation should be top priority, as the benefits to water quality that will arise from fencing and planting the CSA area need to be occurring ideally before, but most likely at the same time as, the land use activities (increasing platform size and increasing milking herd number) have commenced. As a result, a proposed consent condition has been included in the Land Use Consent for Farming, which, if granted, stipulates the CSA must be permanently fenced by 1 June 2023 and planted with native wetland plants by 1 June 2025.

Microbes (e.g. E. coli) and sediment loss

Sediment and microbiological contaminants are not modelled within Overseer. However, Phosphorus loss modelling can be used to indicate the probability of sediment and microbiological contaminant losses. This is because phosphorus in the soil readily bonds to fine soil particles and is therefore lost to the environment via the same contaminant pathways e.g. overland flow and erosion. Microbiological contaminants are also lost to the environment by the mechanics of water flow via these same pathways. In spite of this, P loss processes are not exactly the same as microbial and sediment losses, and therefore the assessment only provides a very broad assumption of the likely losses and risks to the environment from sediment and faecal indicator bacteria. That assumption being if P losses are predicted to reduce then there is likely to be a roughly similar level of reduction in sediment and microbe losses to freshwater.

3.3.2.2 Water Quantity

The applicant is proposing to keep its daily abstract volume at the currently consented volume of 120 m³/day and its yearly volume of 43,800 m³/year. Both the daily and yearly take are the equivalent of 120 L/cow/day, which is the industry standard of efficient use for shed and stock water use. The rate of abstraction is less than 2 L/sec from bore F45/0422. 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 will not result in over-allocation. The closest waterway to the abstraction bores is a tributary of the Makarewa River located 168 m west of bore E46/0175 and 1.1 km east of bore E46/1145. With the bores being located some distance from the tributary and the proposed maximum rate of abstraction of 2 litres per second, no hydraulic connection to this tributary is expected. Therefore, I consider the adverse effects on water quantity, such as over-allocation and stream depletion, to be less than minor.

3.3.2.3 Soil Health

The liquid effluent disposal field is proposed to remain at the currently consented area (213 ha) 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 Booklet⁶. Therefore, I consider the adverse effects on soil health to be less than minor.

3.3.2.4 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 landowners and occupiers. Effluent storage and wintering facilities can cause problems with odour, however, the closest dwelling on another property is located over 400 m from the effluent storage pond and 300 m from all the barn/pad facilities. Additionally, all facilities are more than 150 m from the property boundary. A recommended condition of consent would require, if granted, that the stored or discharged agricultural effluent shall not cause any odour beyond the boundary of the site that is offensive or objectionable.

3.3.2.5 Oreti River

Winton Stream and another small tributary of the Oreti River run through parts of the applicant's property and eventually join the Oreti River less than 1 km downstream. The Oreti River is subject to the Water Conservation (Oreti River) Order 2008, which is a statutory instrument which recognises that the river is an outstanding habitat for brown trout and black-billed gulls, has outstanding angling amenity, and is significant in accordance with tikanga Māori. The Oreti River is also a Statutory Acknowledgement Area under Schedule 50 of the Ngāi Tahu Claims Settlement Act 1998, due to its cultural significance to Ngāi Tahu. The Oreti River ultimately drains to the New River Estuary, which is a shallow (~2 m depth) large (~4,100 ha) 'tidal lagoon'. The primary issue when it comes to New River Estuary water quality is macro algae, elevated levels of faecal bacteria and sediment (and phosphorus, which sticks to the surface of soil particles). The applicant proposes to, or already has, implemented GMPs and mitigations to prevent overland flow to the Oreti River. These include:

- (a) riparian planting the main surface waterway that runs through the farm from paddock 15 and 25 to the southern boundary;
- (b) permanently fencing and planting the main contributing CSA at the head of the main waterway in paddock 15;
- (c) utilising the existing calving pads/barns over winter as well as being available to accommodate cows during adverse weather conditions; and
- (d) reducing the winter crop area from the current permitted baseline of 18.8 ha to 10 ha.

3.3.3 Effects Conclusion

3.3.3.1 The applicant has demonstrated that there will be sufficient storage available in the pond when the land is not suitable to discharge effluent to. The existing pond is synthetically lined, has a leak detection system and was authorised by land use consent AUTH-302425. The effluent system also consists of a 100 m³ 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 inspection has also been reviewed by a Chartered Professional Engineer. 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

⁶ Farm Dairy Effluent, Best Practice Guidelines (2007), Environment Southland

three calving pads/barns allow the applicant to stand cows off pasture during adverse weather, the solid effluent generated on the pads/barns 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. In my opinion, the removal of jersey bulls from the property, utilising the existing calving pads/barns, riparian planting the main surface waterway and the CSA in paddock 15 and decreasing the crop area below the permitted baseline will avoid, remedy or mitigate any potential or actual adverse effects that arise from the proposed inclusion of the additional 61.5 ha into the dairy platform.

3.3.4 Monitoring (future)

3.3.4.1 Groundwater monitoring has occurred on the property in the past from bore E46/0315 (once in May 1998) and bore E46/0175 (seven times between May 2022 and April 2006). Mr Ewen Rodway (Council’s Senior Scientist, Chemistry and Land) was asked to assess whether either of those groundwater quality monitoring bores were still appropriate in this scenario. Mr Rodway noted *“Given the physiographic setting of this property and the past groundwater monitoring results I would not recommend including a consent condition that stipulates continued groundwater quality monitoring.”*

3.3.4.2 Should consent be granted, it is recommended that three compliance inspections be carried out on the property per year. These inspections would be added as an advice note to the discharge permit and farming land use consent for the landholding. The number of inspections required is in my opinion appropriate because:

- most dairy farms in Southland have two or three routine compliance inspections each year;
- the applicant is proposing to winter 100 cows on 10 ha of crop and utilising a grass and baleage system when cows return to the platform from a third party grazier in Spring; and
- the calving pads/barns will be utilised for up to 360 cows (combined) from mid-July to mid-October.

3.3.5 Consideration of Alternatives

3.3.5.1 The application included an assessment of alternatives for the discharge activity only. These included the alternative methods of discharge to water and discharge to land on an as-required basis regardless of the conditions.

3.3.5.2 The applicant considered discharge to water would be more detrimental to the receiving environment than discharge to land. The applicant also considers discharge on an as-required basis would likely result in over saturation of soils, ponding, overland flow and/or excessive leaching which all lead to significant adverse environmental effects. The consideration of alternatives is addressed further in this report in the section on Section 105 of the RMA.

3.4 Relevant provisions of the relevant regional plan objectives, policies and rules (Section 104(1)(b)(v))

3.4.1 At present, both the Regional Water Plan for Southland and the proposed Southland Water and Land Plan are in effect. The Regional Water Plan is operative. The proposed Southland Water and Land Plan has been through the notification, submission and hearing stages, and is currently before the Court with regard to decisions on appeals.

3.4.2 For completeness, if there is a conflict between the planning framework of the Regional Water Plan for Southland and the proposed Southland Water and Land Plan, I consider greater weight should be placed on the proposed Southland Water and Land Plan framework. This is because the proposed Southland Water and Land Plan is a more recent planning document, which has been developed under the National Policy Statement for Freshwater Management and has been through a submissions and hearing process where the majority of the objectives have been resolved.

3.4.3 Both plans pre-date the NPSFM 2020 so may not fully give effect to it. Therefore, regard should be given to the higher order document.

3.4.4 Regional Water Plan (2010)

The application is not inconsistent with the relevant objectives and policies of the Regional Water Plan. The following objectives and policies in the Regional Water Plan for Southland are of particular relevance to this application:

Water Quality

Objective 2 To manage water quality so that there is no reduction in the quality of the water in any surface water body, beyond the zone of reasonable mixing for discharges, below that of the date this Plan became operative.

Objective 3 To maintain and enhance the quality of surface water bodies so that the following values are protected where water quality is already suitable for them, and where water quality is currently not suitable, measurable progress is achieved towards making it suitable for them.

In surface water bodies classified as mountain, hill, lake-fed, spring-fed, lowland (hard bed), lowland (soft bed) and Maitara 1, Maitara 2 and Maitara 3:

- (a) bathing, in those sites where bathing is popular;*
- (b) trout where present, otherwise native fish;*
- (c) stock drinking water;*
- (d) Ngāi Tahu cultural values, including mahinga kai;*
- (e) natural character including aesthetics.*

- Objective 4* *To manage the discharge of contaminants and encourage best environmental practice to improve the water quality in surface water bodies classified as hill, lowland (hard bed), lowland (soft bed) and spring fed, and in particular to achieve a minimum of 10 percent improvement in levels of the following water quality parameters over 10 years from the date this Plan became operative (January 2010):*
- (a) microbiological contaminants*
 - (b) nitrate*
 - (c) phosphorus*
 - (d) clarity*
- Policy 6* *(a) Use non-regulatory methods, in addition to rules, to maintain and enhance surface water and groundwater quality, and to avoid, remedy or mitigate adverse effects on soil quality.*
- (b) Assess on an ongoing basis whether the adoption of non-regulatory methods has resulted in improvements to water or soil quality, and consider the introduction of other interventions if improvements have not resulted.*
- Policy 7* *Prefer discharges to land over discharges to water where this is practicable and the effects are less adverse.*
- Policy 13* *Avoid the point source discharge of raw sewage, foul water and untreated agricultural effluent to water.*
- Water Quantity**
- Objective 5* *To have sufficient water to support the reasonably foreseeable needs of current and future generations and enable people and communities to provide for their social, economic and cultural wellbeing while protecting aquatic ecosystem health, life supporting capacity, natural character and historic heritage values of surface water bodies.*
- Objective 7* *To maximise the efficiency of water use.*
- Objective 9* *To ensure that the total volume and rate of groundwater abstraction is sustainable.*
- Policy 21* *To ensure that the rate of abstraction and abstraction volumes specified on water permits to take and use water are no more than reasonable for the intended end use.*
- Policy 22* *Require, where appropriate, the installation of water measuring devices on all new permits to take and use water.*
- Policy 23* *Impose a condition enabling the review of consent conditions in accordance with Sections 128 and 129 of the Resource Management Act 1991 on all new permits to take and use water*

- Policy 28* *To manage groundwater abstraction to avoid significant adverse effects on:*
- *long-term aquifer storage volumes*
 - *existing water users*
 - *surface water flows and aquatic ecosystems and habitats*
 - *groundwater quality*
- Policy 29* *Manage the stream depletion effect of any groundwater abstraction with a rate of take exceeding 2 litres per second.*
- Policy 30* *Use a staged management approach to allocate groundwater for abstraction in Southland to allow the knowledge gained by the progressive development of the region’s groundwater resources to be built into its future management and recognise and assess the different characteristics of aquifer types.*
- Land and Soils**
- Objective 9A* *To manage discharges onto or into land so that the quality and structure of soil resources are maintained.*
- Policy 31A* *Match the level of management that is required for discharges of contaminants onto or into land to the level of environmental risk posed by the following risk factors:*
- (a) nature and quantity of contaminants in the discharge*
 - (b) sloping land*
 - (c) soils with artificial drainage or coarse structures*
 - (d) soils with impeded drainage or low infiltration rates*
 - (e) well drained soils*
 - (f) climate*
 - (g) proximity to groundwater*
 - (h) proximity to surface water*
 - (i) soil’s current physical, chemical and biological characteristics and its potential to leach nutrients*
 - (j) natural hazards (for example, flooding and erosion).*
- Policy 31C* *Manage discharges of contaminants onto or into land to avoid, remedy or mitigate adverse effects, including on:*
- (a) soil quality;*
 - (b) amenity values;*
 - (c) habitats, ecosystems and indigenous biological diversity;*
 - (d) historic heritage, cultural and traditional values;*
 - (e) natural character;*
 - (f) outstanding natural features.*
- Policy 31D* *Encourage the beneficial reuse of materials where this is appropriate, and promote discharges of these materials onto or into land to maximise the potential reuse of the nutrients and water contained in the discharge.*

Term and granting of Consent

Policy 14A To determine the term of a water permit consideration will be given, but not limited, to:

- (a) the degree of certainty regarding the nature, scale, duration and frequency of adverse effects from the activity;*
- (b) the level of knowledge of the resource;*
- (c) relevant tangata whenua values*
- (d) the allocation sought, particularly the proportion of the resource sought;*
- (e) the duration sought by the applicant, plus material to support the duration sought;*
- (f) the permanence and economic life of the activity;*
- (g) capital investment in the activity;*
- (h) monitoring and review requirement in permit conditions;*
- (i) the desirability of applying a common expiry date for water permits that allocate water from the same resource; and*
- (j) the applicant's compliance with the conditions of the previous permit (where a new water permit is sought for a previously authorised activity).*

Policy 14B In addition to the matters specified in section 104 of the Act, when considering a water permit application for a previously authorised activity where:

- (a) the status of the activity has altered solely as a consequence of subsequent permits being granted to increase allocation from that resource;*
- (b) the activity and knowledge of its adverse effects are the same or similar in character, intensity, and scale to that which existed previously; and*
- (c) the adverse environmental effects of the activity are not significant.*

Policy 43 Match consent duration and inspection and audit requirements on resource consents to apply farm dairy effluent to land to the level of risk of adverse environmental effects.

Agricultural Effluent

Policy 41 Avoid adverse effects on water quality, and avoid as far as possible other adverse environmental effects, associated with the location, design, construction, operation and maintenance of agricultural effluent ponds.

Policy 42 Avoid adverse effects on water quality and other adverse environmental effects associated with the application of farm dairy effluent to land by matching farm dairy effluent management to receiving environment risk.

Comment

The proposed discharge is to land rather than water, and is expected to appropriately mitigate any potential adverse effects on water quality through the provision of low rate discharge, buffers to surface waterbodies and sufficient effluent storage. The current effluent storage pond is appropriately located, designed and constructed with a leak detection system and synthetic liner and has appropriate capacity for the proposed increase in milking herd size. The discharge will include conditions relating to ongoing maintenance and operation of the pond

such as annual visual inspections of the pond when empty and ensuring there is always 0.5 m freeboard available. The level of risk is taken into consideration, including in relation to recommending compliance monitoring. The proposed water abstraction will not exceed 2 L/s so is not expected to result in stream depletion and will not result in full allocation or over-allocation of the groundwater zone. The volume of water the applicant is seeking is deemed an efficient use of water at 120 L/cow/day. Furthermore, the applicant has the ability to use a recycled greenwash which maximises the efficiency of water use. The water permit will include a condition relating to the installation of a water meter and a review condition. The term of consent is considered in Section 4.2 below.

3.4.5 Proposed Southland Water and Land Plan (2018)

The application is not inconsistent with the relevant objectives of the Proposed Southland Water and Land Plan. The following provisions are relevant to the application and are considered in turn below.

Interpretation Statement

All persons exercising functions and powers under this Plan and all persons who use, develop or protect resources to which this Plan applies shall recognise that:

- (i) Objectives 1 and 2 are fundamental to this plan, providing an overarching statement on the management of water and land, and all objectives are to be read together and considered in that context; and
- (ii) the plan embodies ki uta ki tai and upholds Te Mana o Te Wai and they are at the forefront of all discussions and decisions about water and land.

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.

Objective 3 Water and land are recognised as enablers of the economic, social and cultural wellbeing of the region.

Ngāi Tahu

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 4 Tangata whenua values and interests are identified and reflected in the management of freshwater and associated ecosystems.

Policy 1 Enable papatipu rūnanga to effectively undertake their kaitiaki responsibilities in freshwater and land management through the methods listed in the Policy.

Policy 2 Take into account iwi management plans.

Comment

Te Tangi a Taurira, and the views of Te Rūnanga o Ngāi Tahu and Te Ao Marama Inc have been taken into account in assessing the application. I will note that no submission was received from Te Ao Marama Inc and the applicant has engaged with them to develop a riparian planting plan whilst also seeing if it can address any concerns Te Ao Marama Inc has with the proposal. Te Ao Marama Inc was also involved in the consultation phase and development of the pSWLP objectives and policies.

Physiographic Zone

Policy 6

In the Gleyed and Bedrock/Hill Country physiographic zones avoid, remedy or mitigate adverse effects on water quality from contaminants, by:

- 1. requiring implementation of good management practices to manage adverse effects on water quality from contaminants transported via artificial drainage and overland flow where relevant; and*
- 2. having particular regard to adverse effects on water quality from contaminants transported via artificial drainage and overland flow where relevant when assessing resource consent applications and preparing or considering Farm Environmental Management Plans.*

Comment

The physiographic zones relate to the classification of land and risks to water quality based on factors including soil types, landscape classification, climate, topography and water chemistry. These have been developed to better understand Southland’s water and why the quality is better in some areas than others. These policies are particularly relevant to land use activities such as farming.

The mitigations proposed by the applicant target the overland flow contaminant pathways, such as riparian planting, protecting CSAs, utilising calving pads/barns, reducing winter crop area below the permitted baseline and removing beef bulls from the property. Furthermore, consent conditions will require the applicant to reduce Olsen P to agronomic optimum and reduce synthetic nitrogen fertiliser to below the NES-F cap of 190 kg/ha/year, which both target the contaminant pathways mentioned in Policies 6, 9 and 10 above.

Water Quality

Objective 6

Water quality in each freshwater body, coastal lagoon and estuary will be:

- (a) maintained where the water quality is not degraded; and*
- (b) improved where the water quality is degraded by human activities.*

Policy 13

- 1. Recognise that the use and development of Southland’s land and water resources, including for primary production, enables people and communities to provide for their social, economic and cultural wellbeing.*
- 2. Manage land use activities and discharges (point source and non-point source) to enable the achievement of Policies 15A, 15B and 15C.*

Policy 14

Prefer discharges of contaminants to land over discharges of contaminants to water, unless adverse effects associated with a discharge to land are greater than a discharge to water. Particular regard shall be given to any adverse effects on cultural values associated with a discharge to water.

Policy 15B

Where existing water quality does not meet the Appendix E Water Quality Standards or bed sediments do not meet the Appendix C ANZECC sediment guidelines, improve water quality including by:

1. *avoiding where practicable and otherwise remedying or mitigating any adverse effects of new discharges on water quality or sediment quality that would exacerbate the exceedance of those standards or sediment guidelines beyond the zone of reasonable mixing; and*
2. *requiring any application for replacement of an expiring discharge permit to demonstrate how and by when adverse effects will be avoided where practicable and otherwise remedied or mitigated, so that beyond the zone of reasonable mixing water quality will be improved to assist with meeting those standards or sediment guidelines.*

Policy 16

1. *Minimising the adverse environmental effects (including on the quality of water in rivers, coastal lakes, lagoons, tidal estuaries, salt marshes and coastal wetlands, and groundwater) from farming activities by:*

- (a) *strongly discouraging the establishment of new dairy farming or new intensive winter grazing activities in close proximity to Regionally Significant Wetlands and Sensitive Waterbodies identified in Appendix A;*
 - (b) *ensuring that, in the interim period prior to the development of freshwater objectives under Freshwater Management Unit processes, applications to establish new, or further intensify existing, dairy farming of cows or intensive winter grazing activities will generally not be granted where:*
 - i) *the adverse effects, including cumulatively, on the quality of groundwater, or water in lakes, rivers, artificial or modified water courses, tidal estuaries, salt marshes and wetlands cannot be avoided or fully mitigated; or*
 - ii) *existing water quality is already degraded to the point of being over-allocated; or*
 - iii) *water quality does not meet the Appendix E Water Quality Standards or bed sediments do not meet Appendix C ANZECC sediment guidelines; and*
 - (c) *ensuring that, after the development of freshwater objectives under Freshwater Management Unit processes, applications to establish new, or further intensify existing, dairy farming of cows or intensive winter grazing activities:*
 - i) *will generally not be granted where freshwater objectives are not being met; and*
 - ii) *where freshwater objectives are being met, will generally not be granted unless the proposed activity will maintain the overall quality of groundwater and water in lakes, rivers, artificial and modified watercourses, wetlands, tidal estuaries and salt marches.*
2. *Requiring all farming activities, including existing activities, to:*
- (a) *implement a Farm Environmental Management Plan, as set out in Appendix N;*
 - (b) *actively manage sediment run-off risk from farming and hill country development by identifying critical source areas and*

- implementing practices including setbacks from waterbodies, wetlands, riparian planting, limits on areas or duration of exposed soils and the prevention of stock entering the beds of surface waterbodies;*
- (c) *manage collected and diffuse run-off and leaching of nutrients, microbial contaminants and sediment through the identification and management of critical source areas within individual properties.*
3. *When considering a resource consent application for farming activities, consideration should be given to the following matters:*
- (a) *whether multiple farming activities (such as cultivation, riparian setbacks, and winter grazing) can be addressed in a single resource consent; and*
- (b) *granting a consent duration of at least 5 years.*

Effluent Management

Policy 17

1. *Avoid significant adverse effects on water quality, and avoid, remedy or mitigate other adverse effects of the operation of, and discharges from, agricultural effluent management systems.*
2. *Manage agricultural effluent systems and discharges from them by:*
- (a) *designing, constructing and locating systems appropriately and in accordance with best practice;*
- (b) *maintaining and operating agricultural effluent systems in accordance with best practice guidelines;*
- (c) *avoiding any surface run-off or overland flow, ponding or contamination of water, including sub-surface drainage, resulting from the application of agricultural effluent to pasture; and*
- (d) *avoiding the discharge of untreated agricultural effluent to water.*

Comment

The landholding is not located within close proximity of any Regionally Significant Wetlands or Sensitive Waterbodies. The applicant's nutrient budgets show an overall reduction in contaminants when the proposed scenario is compared to the current scenario. In the interim before FMU limits are set, the applicant has proposed mitigations in order to avoid and/or mitigate any adverse effects on water quality such as riparian planting, protecting CSAs, utilising calving pads/barns, reducing winter crop area below the permitted baseline and removing beef bulls from the property. The landholding has an up-to-date Farm Environmental Management Plan, which was prepared in accordance with Appendix N of the Southland Water and Land Plan (Decisions Version). The effluent storage facility is appropriately located, designed and constructed with a synthetic liner and leak detection system and is of appropriate capacity. As a result of the above, I consider the proposal is consistent with Objective 6 and Policies 13, 14, 15B, 16 and 17.

Water Quantity

- 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:*
- (a) the quantity, quality and structure of soil resources are not irreversibly degraded through land use activities or discharges to land; and*
 - (b) the health of people and communities is safeguarded from the adverse effects of discharges of contaminants to land and water; and*
 - (c) 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.*
- Policy 20* *Manage the taking, abstraction, use, damming or diversion of surface water and groundwater so as to:*
- 1A. recognise that the use and development of Southland’s land and water resources, including for primary production, can have positive effects including enabling people and communities to provide for their social, economic and cultural wellbeing;*
 - 1. avoid, remedy or mitigate adverse effects from the use and development of surface water resources on:*
 - (a) the quality and quantity of aquatic habitat, including the life supporting capacity and ecosystem health and processes of water bodies;*
 - (b) natural character values, natural features, and amenity, aesthetic and landscape values;*
 - (c) areas of significant indigenous vegetation and significant habitats of indigenous fauna;*
 - (d) recreational values;*
 - (e) the spiritual and cultural values and beliefs of tangata whenua;*
 - (f) water quality, including temperature and oxygen content;*
 - (g) the reliability of supply for lawful existing surface water users, including those with existing, but not yet implemented, resource consents;*
 - (h) groundwater quality and quantity; and*
 - (j) mātaítai, taiāpure and nohoanga;*
 - 2. avoid, remedy or mitigate significant adverse effects from the use and development of groundwater resources on:*
 - (a) long-term aquifer storage volumes;*
 - (b) the reliability of supply for lawful existing groundwater users, including those with existing, but not yet implemented, resource consents;*
 - (c) surface water flows and levels, particularly in spring-fed streams, natural wetlands, lakes, aquatic ecosystems and*

habitats (including life supporting capacity and ecosystem health and processes of water bodies) and their natural character; and

- (d) water quality;*
- 3. *ensure water is used efficiently and reasonably by requiring that the rate and volume of abstraction specified on water permits to take and use water are no more than reasonable for the intended end use following the criteria established in Appendix O and Appendix L.4.*

Policy 21

Manage the allocation of surface water and groundwater by:

- 1. *determining the primary allocation for confined aquifers not identified in Appendix L.5, following the methodology established in Appendix L.6;*
- 2. *determining that a water body is fully allocated when the total volume of water allocated through current resource consents and permitted activities is equal to either:*
 - (a) the maximum amount that may be allocated under the rules of this Plan, or*
 - (b) the provisions of any water conservation order;*
- 3. *enabling secondary allocation of surface water and groundwater subject to appropriate surface water environmental flow regimes, minimum lake and wetland water levels, minimum groundwater level cutoffs or seasonal recovery triggers, to ensure:*
 - (a) long-term aquifer storage volumes are maintained; and*
 - (b) the reliability of supply for existing groundwater users (including those with existing resource consents for groundwater takes that have not yet been implemented) is not adversely affected.*

Policy 22

Manage the effects of surface and groundwater abstractions by:

- 1. *avoiding allocating water to the extent that the effects on surface water flow would not safeguard the mauri of that waterway and mahinga kai, taonga species or the habitat of trout and salmon, in accordance with Appendix K;*
- 2. *ensuring interference effects are acceptable, in accordance with Appendix L.3; and*
- 3. *utilising the methodology established in Appendix L.2 to: (a) manage the effects of consented groundwater abstractions on surface water bodies; and (b) assess and manage the effects of consented groundwater abstractions in groundwater management zones other than those specified in Appendix L.5.*

Comment

The proposed water abstraction will not exceed 2 L/s, so is not expected to result in stream depletion. The aquifer has been identified in Appendix L.5 and the proposed abstraction will not result in full allocation or over-allocation of that aquifer. The volume of water the applicant is seeking is deemed a reasonable and efficient use of water at 120 L/cow/day. The water permit will include a condition relating to the installation of a water meter and a review condition.

Freshwater Management Unit Policies

Policy 44 *Te Mana o te Wai is recognised at a regional level by tangata whenua and the local community identifying values held for, and associations with, a particular water body and freshwater management unit.*

Particular regard will be given to the following values, alongside any additional regional and local values determined in the Freshwater Management Unit limit setting process:

- *Te Hauora o te Wai (the health and mauri of water);*
- *Te Hauora o te Tangata (the health and mauri of the people);*
- *Te Hauora o te Taiao (the health and mauri of the environment);*
- *Mahinga kai;*
- *Mahi māra (cultivation);*
- *Wai Tapu (Sacred Waters);*
- *Wai Māori (municipal and domestic water supply);*
- *Āu Putea (economic or commercial value);*
- *He ara haere (navigation).*

Policy 45 *In response to Ngāi Tahu and community aspirations and local water quality and quantity issues, FMU sections may include additional catchment-specific values, objectives, policies, attributes, rules and limits which will be read and considered together with the Region-wide Objectives and Region-wide Policies. Any provision on the same subject matter in the relevant FMU section of this Plan prevails over the relevant provision within the Region-wide Objectives and Region-wide Policy sections, unless it is explicitly stated to the contrary.*

As the FMU sections of this Plan are developed in a specific geographical area, FMU sections will not make any changes to the Region-wide Objectives or Region-wide Policies.

Policy 46 *The FMU Sections of this Plan are based on the following identified Freshwater Management Units for Southland, as shown on Map Series 6: Freshwater Management Units:*

- *Fiordland and Islands;*
- *Aparima and Pourakino – Jacobs River Estuary;*
- *Mataura – Toetoes Harbour;*
- *Ōreti and Waihopai – New River Estuary; and*
- *Waiau – Waiau Lagoon.*

Comment

The above provisions relate to the identification of Freshwater Management Units and the subsequent development of policies and rules. As part of this process, water quality and quantity limits will be set for each unit. This is part of the process of addressing water quality and the direction provided by the NPS for Freshwater Management 2020.

Term and Consideration of Consent

- Policy 39* *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.*
- Policy 39A* *When considering the cumulative effects of land use and discharge activities within whole catchments, consider:*
- 1. the integrated management of freshwater and the use and development of land including the interactions between freshwater, land and associated ecosystems (including estuaries); and*
 - 2. through the Freshwater Management Unit process, facilitating the collective management of nutrient losses, including through initiatives such as nutrient user groups and catchment management groups.*
- Policy 40* *When determining the term of a resource consent consideration will be given to a range of factors, fully listed in the policy.*
- Policy 41* *Consider the risk of adverse environmental effects occurring and their likely magnitude when determining requirements for auditing and supply of monitoring information on resource consents*
- Policy 42* *When considering resource consent applications for water permits to take and use water:*
- 1. except for non-consumptive uses, consent will not be granted if a water body is over allocated or fully allocated; or to grant consent would result in a water body becoming over allocated or would not allow an allocation target for a water body to be achieved within a time period defined in this Plan;*
 - 2. except for non-consumptive uses, consents replacing an expiring resource consent for an abstraction from an over-allocated water body will generally only be granted at a reduced rate, the reduction being proportional to the amount of over-allocation and previous use, using the method set out in Appendix O;*
 - 3. installation of water measuring devices will be required on all new permits to take and use water and on existing permits in accordance with the Resource Management (Measurement and Reporting of Water Takes) Regulations 2010;*
 - 4. where appropriate, minimum level or flow cut-offs and seasonal recovery triggers on resource consents for groundwater abstraction will be imposed; and*
 - 5. conditions will be specified relating to a minimum flow or level, or environmental flow or level regime (which may include flow sharing), in accordance with Appendix K, for all new or replacement resource consents (except for water permits for non-consumptive uses, community water supplies and water bodies subject to minimum flow and level regimes established under any water conservation order) for:*
 - (a) surface water abstraction, damming, diversion and use; and*
 - (b) groundwater abstraction in accordance with Policy 23.*

Comment

Term of consent, and in particular the full range of factors in Policy 40, is considered in Section 4.2 below.

Conclusion to Policy Assessment – Regional Plans

The activities have been considered against all relevant provisions of the RWP and the pSWLP. The key policies from the RWP relate to water quality, soil health and water quantity. I consider that the proposed activities are generally consistent with these provisions. The key policies in the pSWLP relate to the physiographic zones which the site is located in and directions around maintaining and/or improving water quality. I consider that the proposed activities are generally consistent with these provisions.

3.5 Relevant provisions of the Southland Regional Policy Statement (Section 104(1)(b)(v))

3.5.1 The Southland Regional Policy Statement 2017 became operative on 9 October 2017. It pre-dates the NPSFM 2020, so may not fully give effect to it. Therefore, regard should be given to the higher order document.

3.5.2 The following objectives and policies in the Regional Policy Statement are of particular relevance to this application:

Tangata Whenua

Objective TW.1 The principles of the Treaty of Waitangi/Te Tiriti o Waitangi are taken into account in a systematic way through effective partnerships between tangata whenua and local authorities, which provide the capacity for tangata whenua to be fully involved in council decision-making processes.

Objective TW.2 All local authority resource management processes and decisions take into account iwi management plans.

Policy TW.1 Consult with, and enhance tangata whenua involvement in local authority resource management decision-making processes, in a manner that is consistent with the principles of the Treaty of Waitangi/Te Tiriti o Waitangi.

Policy TW.2 Actively foster partnerships and relationship agreements between local authorities and tangata whenua.

Policy TW.3 Take iwi management plans into account within local authority resource management decision making processes.

Policy TW.4 When making resource management decisions, ensure that local authority functions and powers are exercised in a manner that:

- (a) recognises and provides for:*
 - (i) traditional Māori uses and practices relating to natural resources (e.g. mātaihai, kaitiakitanga, manaakitanga, matauranga, rāhui, wāhi tapu, taonga raranga);*
 - (ii) the ahi kā (manawhenua) relationship of tangata whenua with and their role as kaitiaki of natural resources;*

- (iii) *mahinga kai and access to areas of natural resources used for customary purposes;*
 - (iv) *mauri and wairua of natural resources;*
 - (v) *places, sites and areas with significant spiritual or cultural historic heritage value to tangata whenua;*
 - (vi) *Māori environmental health and cultural wellbeing.*
- (b) *recognises that only tangata whenua can identify their relationship and that of their culture and traditions with their ancestral lands, water, sites, wāhi tapu and other taonga.*

Water Quality

Objective WQUAL.1 Water quality goals Water quality in the region:

- (a) *safeguards the life-supporting capacity of water and related ecosystems;*
- (b) *safeguards the health of people and communities;*
- (c) *is maintained, or improved in accordance with freshwater objectives formulated under the National Policy Statement for Freshwater Management 2014;*
- (d) *is managed to meet the reasonably foreseeable social, economic and cultural needs of future generations.*

- Policy WQUAL.1*
- (a) *Identify values of surface water, groundwater, and water in coastal lakes, lagoons, tidal estuaries, salt marshes and coastal wetlands, and formulate freshwater objectives in accordance with the National Policy Statement for Freshwater Management 2014; and*
 - (b) *Manage discharges and land use activities to maintain or improve water quality to ensure freshwater objectives in freshwater management units are met.*

- Policy WQUAL.2*
- Maintain or improve water quality, having particular regard to the following contaminants:*
- (a) *nitrogen;*
 - (b) *phosphorus;*
 - (c) *sediment;*
 - (d) *microbiological contaminants.*

- Policy WQUAL.3*
- Identify and protect the significant values of wetlands and outstanding freshwater bodies.*

- Policy WQUAL.5*
- Improve water quality by:*
- (a) *identifying water bodies that are not meeting freshwater objectives, including identifying priority freshwater management units;*
 - (b) *specifying targets to improve water quality within those water bodies within defined timeframes;*
 - (c) *implementing management frameworks to meet the targets taking into account;*
 - (i) *the values supported by the water body/ies;*
 - (ii) *national or legislative standards and requirements;*
 - (iii) *the benefits and costs associated with achieving improvement in water quality*

Policy WQUAL.7 Recognise the social, economic and cultural benefits that may be derived from the use, development or protection of water resources.

Policy WQUAL.8 Prefer discharges of contaminants to land over discharges of contaminants to water, where
(a) a discharge to land is practicable
(b) the adverse effects associated with a discharge to land are less than a discharge to water.

Policy WQUAL.11 Avoid, as far as practicable, remedy or mitigate the risks that the adverse effects of land use activities and discharges of contaminants have on the sources of community water supplies.

Policy WQUAL.13 Continue to improve knowledge and understanding of water resources, and the relationship of land use activities with water quality values in water bodies, in Southland to promote the sustainable management of water.

Water Quantity

Objective WQUAN.1 Flows, levels and allocation regimes of surface water and groundwater in the region are developed in accordance with the National Policy for Freshwater Management 2014 to:

- (a) safeguard the life-supporting capacity of water, catchments and related ecosystems;*
- (b) support the maintenance or improvement of water quality in accordance with Policy WQUAL.1;*
- (c) meet the needs of a range of uses, including the reasonably foreseeable social, economic and cultural needs of future generations;*
- (d) comply with limits or targets set to achieve freshwater objectives.*

Objective WQUAN.2 The allocation and use of Southland’s water resources is efficient.

Policy WQUAN.2 Avoid over-allocation of surface water and groundwater, and resolve any historical instances of over allocation, while recognising the special provisions made for the Waiau catchment.

Policy WQUAN.6 (a) Ensure that any water taken from surface water or groundwater is used efficiently.
(c) Where fresh water bodies are approaching full allocation, consider establishing management provisions to maximise the efficiency of using any available water.

Rural Land and Soils

Objective RURAL.1 Sustainable use of rural land resource Achieve sustainable use of Southland’s rural land resource, in respect of:

- (a) agriculture and primary sector activities;*
- (b) subdivision, use and development activities;*
- (c) earthworks and vegetation clearance activities;*
- (d) the use of soil resources;*
- (e) mineral extraction activities; and*
- (f) on-site wastewater systems.*

Objective RURAL.2 Life-supporting capacity of soils Safeguard the life-supporting capacity, mauri and health of soils in rural areas, and prevent or minimise soil erosion and sedimentation from land use soil disturbance.

Policy RURAL.1 Recognise that use and development of Southland’s rural land resource enables people and communities to provide for their social, economic and cultural wellbeing.

Policy RURAL.2 Maintain land use change activities in rural areas of Southland, in a way that maintains or enhances rural amenity values and character.

Policy RURAL.4 Avoid the irreversible loss of high value soils from productive use, through inappropriate subdivision, use and development.

Policy RURAL.5 The effects of rural land development shall be sustainably managed and land management practices encouraged so that:

- (a) soil properties are safeguarded;*
- (b) soil erosion is minimised;*
- (c) soil compaction and nutrient and sediment loss is minimised;*
- (d) soil disturbance is reduced;*
- (e) water quality is maintained or enhanced;*
- (f) indigenous biodiversity is maintained or enhanced;*
- (g) the mauri of water and soils is safeguarded.*

Comment

The proposed activities are consistent with the policies in the Regional Policy Statement. Even though tangata whenua did not submit on the application, the applicant has engaged with them to develop a riparian planting plan whilst also seeing if it can address any concerns Te Ao Marama Inc has with the proposal. Te Tangi a Tauria is considered in Section 3.9 below.

The proposed land use activity should not result in a reduction in water quality as long as mitigations offered in the application, such as riparian planting, protecting CSAs, utilising calving pads/barns, reducing winter crop area below the permitted baseline and removing beef bulls from the property, are implemented correctly and in a timely manner. The discharge is to land, not water, and consent conditions will require the applicant reduce its Olsen P to agronomic optimum, reduce synthetic nitrogen fertiliser use to below the NES-F cap of 190 kg/ha/year and maintain and/or reduce their modelled nutrient losses to water which should, in theory, improve water quality. Low rate irrigation and sufficiently sized effluent storage also aids in the sustainable management of high value rural soils. The water abstraction volume sought will not result in over allocation and is calculated as 120 L/cow/day, which is considered efficient use for stock drinking and dairy shed wash down purposes.

3.6 Relevant provisions of National Policy Statements (Section 104(1)(b)(iii))

3.6.1 National Policy Statement for Freshwater Management (NPS-FM) 2020

3.6.1.1 The National Policy Statement for Freshwater Management 2020 came into force on 3 September 2020, replacing the earlier National Policy Statement for Freshwater Management 2014. The NPSFM supports improved freshwater management in New Zealand.

It does this by directing regional councils to establish objectives and set limits for freshwater in their regional plans.

3.6.1.2 The following provisions in the National Policy Statement for Freshwater Management (NPS-FM) 2020 are of particular relevance to this application:

Section 1.3 of the NPSFM refers to Te Mana o te Wai as a fundamental concept:

“Te Mana o te Wai is a concept that refers to the fundamental importance of water and recognises that protecting the health of freshwater protects the health and well-being of the wider environment. It protects the mauri of the wai. Te Mana o te Wai is about restoring and preserving the balance between the water, the wider environment, and the community.”

“Te Mana o te Wai encompasses 6 principles relating to the roles of tangata whenua and other New Zealanders in the management of freshwater, and these principles inform this National Policy Statement and its implementation.”

3.6.1.3 The six principles are:

- (a) *Mana whakahaere*: the power, authority, and obligations of tangata whenua to make decisions that maintain, protect, and sustain the health and well-being of, and their relationship with, freshwater;
- (b) *Kaitiakitanga*: the obligation of tangata whenua to preserve, restore, enhance, and sustainably use freshwater for the benefit of present and future generations;
- (c) *Manaakitanga*: the process by which tangata whenua show respect, generosity, and care for freshwater and for others;
- (d) *Governance*: the responsibility of those with authority for making decisions about freshwater to do so in a way that prioritises the health and well-being of freshwater now and into the future;
- (e) *Stewardship*: the obligation of all New Zealanders to manage freshwater in a way that ensures it sustains present and future generations;
- (f) *Care and respect*: the responsibility of all New Zealanders to care for freshwater in providing for the health of the nation.

3.6.1.4 The hierarchy of obligations in Te Mana o te Wai are:

- (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.

3.6.1.5 The NPSFM contains the following objective and policies of relevance to the proposal:

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 *Freshwater is managed in a way that gives effect to Te Mana o te Wai.*

- Policy 2* *Tangata Whenua are actively involved in freshwater management and Māori freshwater values are identified and provided for.*
- Policy 3* *Freshwater is managed in an integrated way that considers the effects of the use and development of land on a whole-of-catchment basis, including the effects on receiving environments.*
- Policy 8* *The significant values of outstanding water bodies are protected.*
- Policy 9* *The habitats of indigenous freshwater species are protected.*
- Policy 10* *The habitat of trout and salmon is protected, insofar as this is consistent with Policy 9.*
- Policy 11* *Freshwater is allocated and used efficiently, all existing over-allocation is phased out and future over-allocation avoided.*
- Policy 12:* *The national target for water quality improvement is achieved.*
- Policy 13:* *The condition of water bodies and freshwater ecosystems is systematically monitored over time, and action is taken where freshwater is degraded, and to reverse deteriorating trends.*
- Policy 15* *Communities are enabled to provide for their social, economic, and cultural well-being in a way that is consistent with the NPSFM.*

Comment

I consider that the proposed activities are consistent with the objective and policies in the National Policy Statement for Freshwater Management. I consider that the mitigations proposed, such as riparian planting, protecting CSAs, utilising calving pads/barns, reducing winter crop area below the permitted baseline and removing beef bulls from the property, would avoid and mitigate any potential adverse effects on water quality, which is consistent with Policies 1, 3, 8, 9 and 10. The volume of water the applicant is seeking will not cause over-allocation and it is deemed an efficient use of water at 120 L/cow/day, which is consistent with Policy 11. Consent conditions will require the applicant to maintain or reduce its modelled nutrient losses to water and report the modelled nutrient losses to Council, which is consistent with Policies 12 and 13. Even though tangata whenua did not submit on the application, the applicant has engaged with them to develop a riparian planting plan whilst also ensuring there are no concerns that need addressing. Consideration of Te Tangi a Taura and the involvement of Te Ao Marama Inc, albeit limited, is not considered inconsistent with Policy 2.

3.8 Relevant provisions of National Environmental Standards and other regulations (Section 104(1)(b)(i) and (ii))

3.8.1 National Environmental Standard for Freshwater Management 2020

3.8.1.1 Section 104 requires consideration of any NES that is relevant. In this case, the National Environmental Standards for Freshwater Management need to be considered. These regulations set requirements for carrying out certain activities that pose risks to the health of freshwater and freshwater ecosystems and came into force on 3 September 2020.

3.8.1.2 Regulation 13 of the Resource Management (National Environmental Standards for Freshwater) Regulations 2020 is as follows:

*“The use of land on a farm for holding cattle in a stockholding area (other than a feedlot) is a permitted activity if it –
(b) complies with the applicable condition or conditions in subclause (3) or (4) of this regulation.*

...

Conditions

(4) In any other case, the conditions are that –

- (a) The base area of the stockholding area must be sealed to a minimum permeability standard of 10^{-9} m/s; and
- (b) Effluent expelled in the stockholding area must be collected, stored, and disposed of in accordance with a rule in a regional or district plan, or a resource consent; and
- (c) The stockholding area must be at least 50 m away from any water body, any water abstraction bore, any drain, and the coastal marine area.”

3.8.1.3 As none of the calving pads have a base that is sealed to a minimum permeability standard of 10^{-9} m/s the proposal moves to Regulation 14 which states:

*“The use of land on a farm for holding cattle in a stockholding area (other than a feedlot) is a discretionary activity if it does not comply –
(a) the condition in regulation 12(3); and
(b) the applicable condition, or any of the applicable conditions, in regulation 13(3) or (4).*

3.8.1.4 Liquid effluent expelled on one of the calving pads is collected, stored in the pond and discharged as per a resource consent. Effluent expelled on the remaining two calving pads is absorbed by the base material (wood chips and/or straw) and discharged in accordance with a regional rule (pSWLP Rule 38). All three calving pads are located more than 50 m of any surface water body, abstraction bore, drain or the Coastal Marine Area. However, only the covered area of calving pad #2 has a concrete base, all other areas of the calving pads have compacted rock or compacted dirt bases. Therefore, the condition requiring the bases to be sealed to a minimum permeability standard of 10^{-9} m/s has not been met, and so the proposal triggers Regulation 14 which deems the use of land for holding cattle in a stockholding area⁷ a discretionary activity.

3.8.1.5 Regulation 18 of the Resource Management (National Environmental Standards for Freshwater) Regulations 2020 is as follows:

“The conversion of land on a farm to dairy farm land is a permitted activity if it complies with the applicable condition.

...

⁷ Defined in the NES-F as an area for holding cattle at a density that means pasture or other vegetative ground cover cannot be maintained but does not include an area used for pastoral purposes that is in the nature of a stockyard, milking shed, wintering barn or sacrifice paddock.

Condition

If the farm included dairy farm land at the close of 2 September 2020, the condition is that, at all times, the area of the farm that is dairy farm land must be no greater than-

- (a) the area of dairy farm land at the close of 2 September 2020; plus*
- (b) 10 ha.”*

3.8.1.6 As the parcel of land being incorporated into the dairy farm is 61.5 ha, the proposal triggers Regulation 19, which in turn means the proposal is subject to Regulation 24. Regulation 24 sets out conditions on granting resource consents for a discretionary activity, which states they may only be granted if they will not result in an increase in contaminant loads in the catchment, or concentrations of contaminants in freshwater, compared with the loads, or concentrations, as at the close of 2 September 2020. It also stipulates that any consent under this regulation must expire before 1 January 2031.

3.8.2 National Environmental Standard for Sources of Human Drinking Water Regulations 2007

3.8.2.1 This NES is relevant to any application for a discharge permit. These regulations aim to reduce the risk of drinking water sources being contaminated. Regulations 7 and 8 only apply to an activity that has the potential to affect a registered drinking-water supply that provides no fewer than 501 people with drinking water for not less than 60 days each calendar year.

3.8.2.2 The activity is 8.5 km upstream of a registered drinking-water supply that provides water to more than 501 people. The Invercargill City Council takes water from the Oreti River at Branxholme for >501 people with this being the key municipal supply for the Invercargill township population currently.

3.8.2.3 In my opinion any potential effects on the water supply are likely to be negligible. The discharge is not directly to water and maintenance of buffer zones, along with other mitigation methods, will be required by consent conditions. Provided the conditions are adhered to, then the discharge is not likely to introduce or increase the concentrations of determinands at the drinking water abstraction point that would cause a breach of the standards.

3.8.3 Resource Management (Measurement and Reporting of Water Takes) Regulations 2010

3.8.3.1 Accurate, complete and current water information is a critical building block in establishing a water management system in which water is effectively allocated and efficiently used. The regulations apply to holders of water permits (resource consents) which allow fresh water to be taken at a rate of 5 L/s or more.

3.8.3.2 As the proposed take is less than 5 L/s then the regulations do not apply. However, if consent was granted metering would be required as a condition of consent to demonstrate compliance with the consent.

3.9 Any other matters considered relevant and reasonably necessary to determine the application (Section 104(1)(c))

3.9.1 Te Tangi a Tauira

3.9.1.1 Te Tangi a Tauira is the Iwi Management Plan for Murihiku. This plan is recognised in Policy 1.2 of the Regional Policy Statement, and is included as a matter considered relevant and necessary under Section 104(1)(c) of the Resource Management Act 1991. Policies from Te Tangi a Tauira, which are relevant to this application, are:

Farm Effluent Management (Section 3.5.1)

Policy 2 Ensure that Ngāi Tahu ki Murihiku are provided with the opportunity to participate in the development of appropriate consent conditions for discharge consents, including monitoring conditions.

Policy 4 Sustain the life supporting capacity of soils for future generations.

Policy 7 Require soil risk assessments prior to consent for discharge to land, to assess the suitability and capability of the receiving environment. Effluent should be applied at rates that match the ability of land to absorb it.

Policy 8 Require best practice for land application of managing farm effluent by using the methods listed in the full policy

Policy 9 Require that farm plans include the location of tile drains on farm to ensure that farm workers know where drains are when irrigating.

Policy 11 Avoid any surface run-off/overland flow, ponding, or contamination of water resulting from the application of dairy shed effluent to pasture.

Policy 13 Appropriate buffer zones between discharge activities and waterways.

Policy 14 Buffer zones of at least 100m between discharge activities and bores.

Policy 15 Manage and contain all spray drift from irrigation of effluent.

Water Quality (Section 3.5.13)

Policy 5 Avoid the use of water as a receiving environment for the discharge of contaminants. Generally, all discharge must be first to land.

Policy 6 Avoid impacts on water as a result of inappropriate discharge to land activities.

Policy 9 Require the use of buffer zones, riparian areas, bunds and other mechanisms to prevent stormwater and other wastewater from entering waterways.

Policy 11 Require robust monitoring of discharge permits, to detect non-compliance with consent conditions. Non-compliance must result in appropriate enforcement action to discourage further non-compliance.

Water Quantity - Abstractions (Section 3.5.14)

Policy 4 In the Southland Plains region, the preference is for water takes from bores as opposed to surface water.

Policy 16 Encourage the installation of appropriate measuring devices on all water abstractions.

Policy 17 Advocate for durations not exceeding 25 years on resource consents related to water abstractions.

Policy 18 Require, where necessary, a consent condition providing for a review of the volume able to be abstracted from the bores.

Comment

I am not a suitably qualified person with regard to cultural impact assessments, however I have sought to assess the proposal against the direction in Te Tangi a Tauira as far as possible. The main discharge method of effluent is to land via low rate pods with other methods proposed as contingency measures, which is consistent with Farm Effluent Management Policies 4, 7, 8, 9 and water quality Polices 5 and 6. Conditions of consent relating to buffer distances, riparian planting, spray drift and ponding of effluent are included in the conditions of consent which is consistent with the Farm Effluent Management Policies 11, 13, 14, 15 and water quality Policy 9. The water take is from a bore, conditions relating to water meters and review of abstraction volume are also included in the water abstraction permit along with a consent duration of less than 25 years. Ngāi Tahu Murihiku has been involved in the application as the applicant has engaged with them to develop a riparian planting plan whilst also ensuring Te Ao Marama Inc has no concerns regarding the proposal, which is consistent with Policy 3.5.1.2. I note the Iwi Management Plan has very few policies relating to land use activities with regard to dairy farm expansions and land intensification. This is presumably because Te Tangi a Tauira became operative in 2008 during the dairy boom in Southland.

3.10 Section 105 matters relevant to discharge or coastal permits

3.10.1 Section 105 matters need to be considered as the application is for a discharge that would contravene Section 15. Under Section 105, the consent authority must have regard to:

- (a) the nature of the discharge and the sensitivity of the receiving environment to adverse effects;
- (b) the applicant’s reasons for the proposed choice; and
- (c) any possible alternative methods of discharge, including discharge into any other receiving environment.

3.10.2 The sensitivity of the receiving environment has been considered, being in particular the key risk to surface water quality through overland flow of contaminants. The main irrigation method is low rate discharge which is considered to be appropriate for the receiving environment. The proposal also includes discharge buffers to surface waterways and bores.

3.10.3 The alternatives considered by the applicant are summarised at paragraph 3.3.5 above. I have had regard to those alternative methods and receiving environments (discharge to water and “as required” discharge to land). I agree with the applicant that those alternatives would likely

result in greater adverse effects. The application noted *“there are no other practicable environmentally acceptable alternatives to applying effluent to land”*.

3.11 Section 107 restriction on grant of certain discharge permits

3.11.1 Section 107(1) states that a discharge permit should not be approved if, after reasonable mixing, the contaminant is likely to give rise to adverse effects.

3.11.2 With regard to s.107, the application noted *“There are no matters under Section 107(1) of the RMA that would require the consent authority to decline this application.”*

3.11.3 If carefully managed, the proposed effluent discharge is not expected to give rise to the effects on surface water listed in Section 107.

3.12 Part 2 of the Resource Management Act 1991

3.12.1 All considerations are subject to Part 2 of the RMA, which sets out the purpose and principles that guide this legislation. Section 5 states the purpose of the RMA and Sections 6, 7 and 8 are principles intended to provide additional guidance as to the way in which the purpose is to be achieved.

3.12.2 The application of Section 5 involves consideration of a range of matters in assessing whether a proposal will promote the sustainable management of natural and physical resources. The enabling and managing functions found in s5(2) should be considered of equal importance and taken as a whole. Sections 6, 7 and 8 provide further context and guidance to the constraints found in s5(2)(a), (b) and (c). The commencing words to these sections differ, thereby establishing the relative weight to be given to each section.

3.12.3 In relation to the matters outlined in Section 5, I consider that this application is consistent with the purpose and the principles of the Act, as set out in Section 5. This is the promotion of the sustainable management of natural and physical resources. The proposed activities will have no more than minor adverse effects on the ability of the receiving environment to meet the reasonably foreseeable needs of future generations, or on the life-supporting capacity of the land or any ecosystem associated with it. The proposed consent conditions would ensure that any potential adverse effects of the activities will be avoided, remedied or mitigated.

3.12.4 All of the Part 6 matters have been covered within the various Council planning instruments, of which the application is generally consistent with. There is only one matter of national importance, as outlined in Section 6 of the Act, that needs to be recognised and provided for in the context of this application. This is the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, wāhi tapu and other taonga. However, the landholding is not part of Statutory Acknowledgment Area under the Ngāi Tahu Claims Settlement Act 1996 and there are no known areas of cultural importance within the site. Consideration has also been given, as per Section 104(1) to the relevant Iwi Management Plan for Southland. The following parts of Section 6 have been recognised and provided for, but do not have a direct relationship to the application because:

- the natural character of the coastal environment, wetland, rivers and lakes and their margins will not be developed, used or subdivided as part of this application;
- there are no identified Outstanding Natural Features and/or Outstanding Natural Landscapes within the area;

- there are no known areas of significant indigenous vegetation and significant habitats of indigenous fauna;
- the application does not relate to public access to and along the coastal marine area, lakes would and/or rivers;
- there are no known sites of historic heritage within the farm and as such they will not be affected by inappropriate use, subdivision or development;
- the site is in the broader Oreti catchment but is not within a Statutory Acknowledgment Area and is not part of any customary rights.

3.12.5 In relation to the considerations under Section 7, I consider that the activity would not be detrimental to the matters listed in Section 7 (a)–(j). In particular, the efficient use of and development of resources, the maintenance and enhancement of the quality of the environment and the protection of the habitat of trout and salmon. It is considered that, as the application is generally consistent with the various Council planning documents, the application is also generally consistent with the aforementioned Section 7 matters.

3.12.6 With regard to Section 8 of the Act, the principles of the Treaty of Waitangi have been taken into account. This is through the consideration of Te Tangi a Tauria (Iwi Management Plan) and the relevant policies in other planning documents.

3.12.7 Overall, I consider that the application meets the relevant provisions of Part 2 of the RMA as the proposal achieves the purpose of the RMA, which is the sustainable management of natural and physical resources.

4. Recommendations

4.1 Whether to grant

4.1.1 The application is considered a **discretionary activity**. Under Section 104B the Council may grant or refuse consent for a discretionary activity, and if it grants the application, may impose conditions under Section 108 of the RMA.

4.1.2 I consider that it is appropriate to grant the application for the following reasons:

- the application is generally consistent with the objectives and policies of the relevant National Policy Statement, Regional Policy Statement, Iwi Management Plan and Regional Plans;
- any potential or actual adverse effects on the environment from the proposed activity are expected to be no more than minor if the mitigations are implemented correctly and in a timely manner and agreed conditions of consent are adhered to; and
- the mitigations the applicant has offered will avoid, remedy or mitigate any actual adverse effects that do arise from the proposed activity.

4.1.3 Noting the concerns raised by the submitter in relation to groundwater quality and nitrate levels in groundwater and associated potential adverse health effects, I have closely considered this issue when formulating my report and recommendation. The proposed dairy farm expansion activity has appropriate mitigation measures proposed by the applicant, including riparian planting, protecting CSAs, utilising calving pads/barns, reducing winter crop area below the permitted baseline and removing beef bulls from the property. Recommended conditions of consent include implementing a soil testing regime, restrictions on intensive winter grazing,

maintaining a Farm Environmental Management Plan and ensuring proposed mitigation measures are implemented to improve water quality.

4.1.4 Overall, I recommend, that for the above reasons, the application be granted pursuant to Sections 104B and 108 of the Resource Management Act 1991, subject to the consent conditions.

4.2 Term of consent

4.2.1 The applicant has requested a consent term of 10 years due to:

- the financial investment involved in gaining a consent of this nature;
- certainty that the proposed mitigations and appropriate management techniques will address all potential adverse effects;
- consistency with the direction in Te Tangi a Taurira that consent terms should be less than 25 years;
- the applicant's good compliance history for the existing resource consents; and
- the timing, development and implementation of any revised framework established in the FMU section of the PSWLP not being adversely affected by a 10-year duration.

4.2.2 Policies 14A and 43 of the Regional Water Plan set out factors to consider specifically in relation to the term of water and discharge permits but not land use consents. Policy 40 of the proposed Southland Water and Land Plan has requirements for term and should be given greater weighting over the RWP policies.

4.2.3 Policy 40 requires that determination of the term includes:

- granting a shorter duration than that sought by the applicant when there is uncertainty regarding the nature, scale, duration, and frequency of adverse effects from the activity or the capacity of the resource;
- relevant tāngata whenua values and Ngāi Tahu indicators of health;
- the duration sought by the applicant and reasons for the duration sought;
- the permanence and economic life of any capital investment;
- the desirability of applying a common expiry date for water permits that allocate water from the same resource or land use and discharges that may affect the quality of the same resource;
- the applicant's compliance with the conditions of any previous resource consent, and the applicant's adoption, particularly voluntarily, of good management practices; and
- the timing of development of FMU sections of this plan, and whether granting a shorter or longer duration will better enable implementation of any revised frameworks established in those sections.

4.2.4 Following consideration of the policies above, I consider that the 10-year period requested would have been appropriate. However, that is not legally possible for any consents required under the NES-F, as it requires the term of a discretionary activity to expire before 1 January 2031. Section 43B(3) of the RMA states that "*a rule or resource consent that is more lenient than a national environmental standard prevails over the standard if the standard expressly says that a rule or consent may be more lenient than it.*" and Section 6(1) of the NES-F states "*A district rule, regional rule, or resource consent may be more stringent than these regulations.*" Consequently, all the NES-F consents (land use for farming and associated

discharge activity) must have an expiry date of no later than 31 December 2030. The remaining consents (water abstraction and land use for calving pads) could be granted for the requested 10-year term, however Policy 40(5) highlights the desirability of ensuring common expiry dates when the same resource is affected by different types of consents. Therefore, I recommend that the application is granted, with all permits given the common expiry date of 31 December 2030.



Jade McRae
Senior Consents Officer

Attached: Discharge permit AUTH-20211740-01, Water permit AUTH-20211740-02, Land Use Consent AUTH-20211740-03 and Land Use Consent AUTH 20211740-04

RECOMMENDATIONS IN COUNCIL REPORTS ARE NOT TO BE CONSTRUED
AS COUNCIL POLICY UNLESS ADOPTED BY COUNCIL

Attachment 1

Irricon Resource Solutions OVERSEER Nutrient Budget Review Report on behalf of Council



Irricon
resource solutions

OVERSEER Nutrient Budget Review

For: Environment Southland – Platinum Dairies Ltd

Prepared by: Nicky Watt, CNMA

Date: 25th January 2022

www.irricon.co.nz

Introduction

1. Regarding the consent application for Platinum Dairies Ltd, I have reviewed the following OVERSEER[®] Nutrient Budget (OVERSEER) files:
 - a) Year Ending 2021
 - b) Muir Year End 21
 - c) Proposed Combined
2. Along with the files I have reviewed the following accompany report: “OverseerFM farm system modelling to support a consent application for expanded dairy” prepared by Miranda Hunt, Roslin Consultancy Ltd and reviewed by Mo Topham, AgriAce. I have completed a robustness check on the file for sensibility based on data available and checked to ensure the modelling aligns with the OVERSEER Best Practice Data Input Standards for v6.4.2.
3. It must be assumed that the information provided in the OVERSEER files that the current farming system as modelled is a viable farming system, using actual stock and fertiliser inputs. Therefore, the actual and proposed scenario is also assumed to be appropriate for the location and climate.
4. A ‘sensibility test’ has been undertaken on the Platinum Dairies Ltd nutrient budgets with the following five output screens from OVERSEER forming the basis of the determination of the robustness of the nutrient budget:
 - a) Is the nutrient loss consistent with what you would expect for an operation of this type and soils in this location?
 - b) Does the summary of inputs and outputs make sense? Especially clover fixation and change in block pools?
 - c) Check the ‘Other values’ block reports for rainfall, drainage, and PAW.
 - d) Select the Scenario reports other values and check the production and stocking rate.
 - e) Select the pasture production in the scenario report and check pasture growth.
5. Answers to each of these five points will be provided further in this report and then a final determination of the robustness of the nutrient loss to water will be provided at the end of this report.

OVERSEER AUDIT

Appropriateness of the Overseer inputs

1. The Overseer FM files submitted and stated in paragraph 1 of this report have been reviewed for consistency between the files and appropriateness of the inputs regarding the farming systems and the Overseer Best Practice Data Input Standard (BPDIS).
2. I concur that there are some deviations from the BPDIS. The crop rotation final month for the Muir YE model has a final month entered as ‘June’ and ‘September’ was entered for the Proposed model.
3. The YE 2021 models combined, and Proposed model have a total area of 317.7 ha with 310 ha effective. The YE 2021 combined models have a revised stocking rate of 35.7 RSU/ha for dairy

cows and the Proposed combined model have a revised stocking rate of 33.7 RSU/ha or a 5.6% decrease in RSU/ha (see Table 1 and 1a below).

4. Reviewing the NZ Dairy statistics for the 2019/2020 season, shows the average milk solids production on this property for the YE 21 model at 467.9 kgMS/cow and 1748 kgMS/ha is respectively higher than the Southland Regional average of 418 kg MS/cow and higher than the Southland Regional average of 1133 kgMS/ha. The Prop MP model at 464 kgMS/cow and 1567 kgMS/ha is respectively higher than the Southland Regional average of 418 kg MS/cow and higher than the Southland Regional average of 1133 kgMS/ha.
5. The dairy cow stocking rate for YE 21 and Prop MP model at 3.7 and 3.4 cows/ha are respectively greater than the Southland average for the 2019/2020 season of 2.76 cows/ha (Invercargill).

Table 1: Summary of Production and stocking rate

	YE 21 ¹	Muir YE 21 ²	Proposed ³
Total Ha	256.2	61.5	317.7
Effective Area (ha)	250.5	59.5	310
Effective Pasture Area (ha)	250.5	27.8	300
KgMS	437773	-	470000
MS kg/ha grazed	1748	-	1567
MS kg MS/cow	469.7	-	464
Dairy RSU	8949	-	10100
Total RSU/ha (eff pasture area)	35.9	-	33.7
Lactation Length	266	-	266
Cows/ha	3.7	-	3.4
Cows October	932	-	1000
Cows June	0	436	100
Cows July	0	460	360
Yearlings June	-	13	-
Yearlings July	-	-	-
Replacement RSU	-	-	203
Dairy Grazing RSU	-	867	755
Dairy Grazing RSU/ha (Eff past)	-	14.6	19.1
N lost kg/ha/yr	55	57	47

¹Year Ending 2021 – YE 21

²Muir Year End 21- Muir YE 21

³Proposed Combined – Proposed

Table 1a: Total Figures for Year End 2021 and Proposed

	Year End 2021	Proposed
Total Ha	317.7	317.7
Effective Area (ha)	310	310
Effective Pasture Area (ha)	278.3	300
KgMS	437773	470000
MS kg/ha grazed	1748	1567
MS kg MS/cow	469.7	464
Dairy RSU	8949	10100
Dairy RSU/ha (eff pasture area)	35.7	33.7
Total RSU	9867	10303
Total RSU/ Eff Pasture ha	35.5	34.3
Lactation Length	266	266
Cows/ha	3.7	3.4
Cows October	932	1000
Cows June	436	100
Cows July	460	360
Yearlings June/July	13	-
N lost kg/ha/yr	55.5	52.0

6. The YE 2021 models combined showed an area of 9.7 ha of fodder beet crop grazed in the winter 2020 and 6.2 ha of swede crop winter 2020. The area of winter 2021 crop was 12.6 ha swedes and 9.4 ha kale. The YE 2021 models had both the 2020 and 2021 wintered crops in the reporting year (due to crop final month being June). There was 10 ha Swede crop in the Proposed model (see Table 2 and 2a below).

*Table 2: Crop Details***

	YE 21	Muir YE 21	Proposed
Fodder Beet Crop (ha)	-	9.7	-
Fodder Beet Yield (tDM/ha)	-	23	-
When grazed	-	Jul/Aug 20	-
Grazed by	-	Dairy Cows	-
Swedes (ha) – Crop	-	6.2 + 12.6	10
Swedes Yield (tDM/ha)	-	12	12
When grazed	-	Jul/Aug 20 + Jun 21	Jun/Jul/Aug
Grazed by	-	Dairy Cows*	Dairy cows (3.5 ha lifted)
Kale (ha) - Crop	-	9.4	-
Kale Yield (tDM/ha)	-	12	-
When grazed	-	Jun 21	-
Grazed by	-	Dairy cows	-

*Plus 3.2 ha of swede lifted winter 20

**The crop rotation final month is June for Muir YE 21 and September for Proposed.

Table 2a: Total Crop Details for Year End 2021 and Proposed

	YE 2021	Proposed
Fodder Beet Crop (ha)	9.7	-
Fodder Beet Yield (tDM/ha)	23	-
When grazed	Jul/Aug 20	-
Grazed by	Dairy Cows	-
Swedes (ha) – Crop	6.2 + 12.6	10
Swedes Yield (tDM/ha)	12	12
When grazed	Jul/Aug 20 + Jun 21	Jun/Jul/Aug
Grazed by	Dairy Cows*	Dairy cows (3.5 ha lifted)
Kale (ha) - Crop	9.4	-
Kale Yield (tDM/ha)	12	-
When grazed	Jun 21	-
Grazed by	Dairy cows	-

*Plus 3.2 ha of swede lifted winter 20

7. The soils for YE 2021 and the Proposed models were compared as shown in Table 3 below. There is no difference between models

Table 3: Soil Details for Year End 2021 and Proposed

	YE 2021	Proposed
Pukem_6a.1	214.5	214.5
Wood_29a.1	51	51
Waiki_34a.1	38.8	38.8
Paro_4a.1	3.2	3.2
Makar_3b.1	2.5	2.5

8. Supplements are imported to meet cow demand (see Table 4 below). Pasture silage has been made where there was a surplus of pasture. The YE 2021 models have a pasture growth calculated at 18.8 tDM/ha for dairy area and the Proposed model has a pasture growth of 18.0 tDM/ha for dairy pasture. This is a decrease of 4.3% in pasture growth for the dairy pasture. The N used on all pasture blocks in the YE 2021 models combined was 217 kgN/ha for dairy and 145 kgN/ha for the dairy support compared to 189 kgN/ha for the non-effluent dairy and dairy support and 154

kgN/ha for effluent areas in the combined Proposed models. There is expected to be 5.6% less supplement imported and 92% less silage harvested in the combined Proposed model compared to the combined YE 2021 models (see Table 4 and 4a below).

Table 4: Supplements imported and Harvested

	YE 21	Muir YE 21	Proposed
Supplements Imported (tDM)	1130	88	1150
Supplements Imported Effective Area (tDM/ha)	4.51	1.48	3.83
Silage Harvested (tDM)	-	367	31
Silage Harvested Pasture (tDM/ha)	-	6.17	0.10
Total Area (ha)	256.2	61.5	317.7
Effective Area (ha)	250.5	59.5	310
Effective Pasture Area (ha)	250.5	27.8	300
RSU/ha (effective pasture area)	35.9	31.2	34.3
Peak Cows/ha	3.7	-	3.4
Dairy RSU	8949	-	10100
Dairy RSU/ha (Eff past)	35.7	-	33.7
N Fertiliser applied non -effluent area(kgN/ha)	217	-	189
N Fertiliser applied effluent Area (kgN/ha)	217	-	154
N Fertiliser applied to support area (kgN/ha)	-	145	-
Pasture Growth support area (tDM/ha)	-	17.8	-
Pasture Growth dairy area (tDM/ha)	18.8	-	18.0

Table 4a: Total Supplement for Year End 2021 and Proposed

	YE 2021	Proposed
Supplements Imported (tDM)	1218	1150
Supplements Imported Effective Area (tDM/ha)	3.92	3.83
Silage Harvested (tDM)	367	31
Silage Harvested Pasture (tDM/ha)	1.18	0.10
Total Area (ha)	317.7	317.7
Effective Area (ha)	310	310
Effective Pasture Area (ha)	278.3	300
Peak Cows/ha	3.7	3.4
Total RSU	9867	10303
Total RSU/ Eff Pasture ha	35.5	34.3
Dairy RSU	8949	10100
Dairy RSU/ha (eff pasture area)	35.7	33.7
N Fertiliser applied non -effluent area(kgN/ha)	217	189
N Fertiliser applied effluent Area (kgN/ha)	217	154
N Fertiliser applied to support area (kgN/ha)	145	-
Pasture Growth support area (tDM/ha)	17.8	-
Pasture Growth dairy area (tDM/ha)	18.8	18.0

Overseer Outputs

- The combined N lost to water for the YE 2021 models was 55.5 kgN/ha/yr (17642 kgN/annum) compared to 52 kgN/ha/yr (16541 kgN/annum) for the Proposed model which is a 6.2% reduction in total N loss. The combined P lost for the YE 2021 models was 1.3 kgP/ha/yr (419 kgP/annum) compared to 1.9 kgP/ha/yr (399 kgP/annum) for the Proposed model which is a 4.8% reduction in total P loss (see Table 5 below). It is assumed that the information provided in this farming system is modelled as a viable farming system, using actual stock and fertiliser inputs.

Table 5: OVERSEER outputs

Overseer v6.4.2	YE 21	Muir YE 21	Proposed
N lost to water kg/ha/yr	55	57	52
Total N lost kg/farm	14125	3517	16541
P lost kg/ha/yr	1.4	1	1.3
Total P lost kg/farm	358	61	399
<i>Other sources – N</i>	916	17	1110
<i>Other sources – P</i>	171	13	190

Table 5a: Total OVERSEER outputs between Year End 2021 and Proposed

Overseer v6.4.2	YE 2021	Proposed
N lost to water kg/ha/yr	55.5	52
Total N lost kg/farm	17642	16541
P lost kg/ha/yr	1.3	1.3
Total P lost kg/farm	419	399
<i>Other sources – N</i>	933	1110
<i>Other sources – P</i>	184	190

Change in block pools

10. The organic pool for N indicates the amount of N that is being either immobilized as seen by a 'positive' Organic pool N value or being mineralized as seen by a 'negative' Organic pool N value. N being immobilized is being used for increased biological activity and temporarily locked up. Once the microorganisms die the organic N in their cells is converted by mineralization and nitrification to plant available nitrate. It appears N is potentially being immobilized in all models (see Table 6 below).
11. The inorganic soil pool for P indicates the amount P that exceeds soil P maintenance as seen by a 'positive' inorganic soil P value or is less than the soil P maintenance requirements as seen by a 'negative' inorganic soil P value. Above maintenance P was applied to YE models and slightly above maintenance levels for the Proposed model (see Table 6a below).

Table 6: Change in block pool (N)

	YE 21	Muir YE 21	Proposed
Organic Pool	141	-1	109
Inorganic Mineral	0	0	0
Inorganic Soil Pool	0	36	4

Table 6a: Change in block pool (P)

	YE 20	Muir YE 21	Proposed
Organic Pool	15	-5	13
Inorganic Mineral	2	2	2
Inorganic Soil Pool	19	41	4

Rain/clover N Fixation

All plants, including forage crops, need relatively large amounts of nitrogen for growth and development. Biological nitrogen fixation is the term used for a process in which nitrogen gas (N₂) from the atmosphere is incorporated into the tissue of certain plants. Only a select group of plants can obtain N this way, with the help of soil microorganisms. Among forage plants, the group of plants known as legumes (predominantly Clover in NZ pastures) are well known for being able to obtain N from air N₂. The OVERSEER Technical Manual – Characteristics of Pasture, April 2015 indicates that biological N fixation is based on total pasture production and includes the fertiliser induced reduction in N fixation.

12. The Biological fixation for the combined YE 21 Models is 101 compared to the Proposed model at 122 (see table 7a below).
13. The N added to pasture for the combined YE models was 210 kgN/ha compared to 164 kgN/ha for the combined Proposed models (a 21.9 % drop in N used).
14. The increase in biological fixation in the Proposed model can be explained by the almost 22% decrease in N fertiliser applied.

Table 7: Biological fixation

	YE 21	Muir YE 21	Proposed
Biological Fixation (kg/ha/yr)	104	74	122
Average N applied to whole farm kg/ha/yr	212 (217 to all pasture)	106 (145 to all pasture)	157 (189 to non-effluent and 154 to effluent pasture)

Table 7a: Biological fixation between Year End 2021 and Proposed

	YE 21	Prop MP
Biological Fixation (kg/ha/yr)	101	122
Average N applied to pasture kg/ha/yr	210	164

Pasture Production

15. The average effluent N inputs for the YE 2021 models was 52kgN/ha from liquid to 212.6 ha of pasture and 6 kgN/ha from solid effluent to 250.5 ha pasture (see table 8 below). The average effluent N inputs for Proposed model was 56 kgN/ha from liquid to 212.6 ha of pasture and 6 kgN/ha from solid effluent to 300 ha pasture.
16. Fertiliser inputs of N, for the YE 2021 models combined, to effluent and non-effluent pasture was 217 kgN/ha (see Table 8 below). The combined fertiliser inputs of N to pasture onto effluent and non-effluent area was 169 kgN/ha pasture in the Proposed model (see Table 7a above).
17. Liquid effluent is applied onto pasture block for all the models was applied all year-round using a <12 mm application method. Solids effluent from pond is applied in Jan for all the models.

Table 8: Pasture production and N inputs (fertiliser and effluent)

	YE 2021	Proposed
Effluent Liquid Area (ha)	212.6	212.6
Effluent Solids Area (ha)	250.5	300
Pasture Growth (tDM/ha/yr)		
Effluent	18.8	18.0
Non-Effluent	18.8	18.0
Support	17.8	18.0
N Fertiliser inputs (kg/ha/yr)		
Effluent	217	154
Non-Effluent	217	189
N Effluent Inputs (kg/ha/yr)		
Effluent	52	56
Non-effluent (includes solids)	6	6
Total N Inputs (kgN/ha/yr)		
Effluent	269	210
Non-Effluent	223	196

18. The pasture production for all models have been modelled as varying based on topography, climate, and development status.
19. Fertiliser inputs of N are high for the YE 2021 models compared to moderate for the Proposed Model (see Tables 7a and 8).
20. It is assumed the YE 2021 models represent the actual farm system with actual stock, crop area and fertiliser inputs, it is assumed that the pasture production is accurate and reasonable.
21. Long term pasture growth in Southland between 1979 and 2012 indicated that average pasture growth for newer pastures was 12.7T DM/ha/yr.
22. The dairy pasture production for the YE 21 model was 18.8 tDM/ha compared to 18.0 tDM/ha for the Proposed models which is respectively 32.4% and 29.4% higher than the Southland average (see Tables 4, 4a and 8 above).
23. YE 21 model: Allowing for the Overseer model assuming an average metabolisable energy (ME) value of 10.5 MJME/kgDM for pasture and South Island pastures have a ME value closer to 11 MJME/kgDM the models output of pasture growth would drop by 4.5%. Also, the YE 21 model has used actual data and is assumed that pasture renewal has occurred, and new pasture can account for a 15-20% improvement in pasture growth. Also 2.6 tDM/ha would come from the high N fertiliser applied (217 kgN/ha X 12 kgDM/kgN applied). This more than accounts for the high pasture growth.
24. Proposed model: The drop in pasture growth can be accounted for in the large drop in N fertiliser applied, decrease in pasture harvested and decrease in RSU/ha.
25. The animal distribution is modelled as 'No difference between blocks' and 'Same ratio of animal intake' with 'Default Grazing Months' for all models.

Mitigations Modelled

26. Reporting out lined the following: As described in the Nutrient Budget Report for Platinum Dairies Ltd prepared Miranda Hunt, Roslin Consultancy Ltd (page 5 of the 'OverseerFM farm consultancy modelling to support a consent application for expanded dairy' document), there are several mitigation measures indicated to mitigate N loss that have been included in the Proposed modelling. The below table details if the mitigation measures have been included in the proposed scenario and if they are accurately modelled.

Table 9: Mitigation option for Proposed scenario

Reduced area of winter crop	Yes, the area of winter crop has decreased from 22 ha of Swedes/Kale in the YE 21 models to 10 ha of Swedes in the Proposed model. Note that we are not comparing the same 'Crop Rotation Final Month'. Muir 2 YE21 model had the month of 'June' entered and the Proposed had 'September'.
Decrease in N applied	Yes, N fertiliser applied to pasture decreased from 210 kgN/ha for the YE 21 models combined compared to an average of 164 kgN/ha for the Proposed model (a 21.9 % decrease).

Reduction in cows wintered	Yes, the cows wintered have dropped from 436/460 cows June/July in the muir YE Model compared to 100/360 cows June/July for the Proposed model.
Removal of jersey bulls	Yes, there are no Jersey Bulls in the Proposed model
Reduced young stock numbers	Yes, the calves in the Muir YE 21 were 287 (October to early Dec), this is reduced to 265 (Aug to mid Dec) in the Proposed model
Reducing the farm average Olsen P to 30	Yes, the drop in Olsen P to 30 has been modelled.

27. All mitigations identified in the OverseerFM report have been modelled correctly.
28. I have added 'change in fertiliser timing' and 'imported supplement', which are mitigations I have added and not mentioned as mitigations in the OverseerFM Modelling Report, as they can have an impact on N loss.
29. It is important that these mitigation measures are measured and monitored as if they are not adhered to the N loss reductions proposed may not occur.
30. Some good management practices assumed in Overseer are maintain accurate and auditable records of annual farm inputs, outputs and management practices (Overseer output is only as good as the data entered); Fertiliser is being applied according to the Fertmark and Spreadmark Codes of Practice; Feed is stored to minimise leachate and soil damage; Compliant effluent systems as defined by DairyNZ; Stock exclusion from water ways; Irrigation efficiency greater than 80%; farm race and bridge/culvert nutrient runoff is directed to paddocks; grazing managed to minimise losses from critical source areas.
31. Overseer will account for bad practices such as nitrogen (N) applied that exceeds the plants' ability to absorb the excess N, application of N in the winter, high stocking rates, land left fallow between crops and irrigating high water application rates causing N drainage to name a few.
32. The Overseer modelling completed for this farm does not have any of the 'Bad Practices' as suggested in paragraph 31, and it would be assumed the FEMP would cover any good management practices (not limited to) outlined in paragraph 30.

CONCLUDING COMMENTS

Determination of the robustness of the nutrient loss to water

33. The questions below were described at Paragraph five of this report. Whilst these have been answered throughout this report, this section summarizes the answer to each question to make an overall conclusion about the robustness of the nutrient budgets.

Is the N loss consistent with what you would expect for an operation of this type and soils in this location?

34. Based on my experience, the N loss estimates are reasonably consistent with an operation of this scale and soil types present.

Does the summary of inputs and outputs make sense? Especially clover fixation and change in block pools?

35. The Biological fixation for the combined YE 21 Models is 101 compared to the Proposed model at 122.
36. The N added to pasture for the combined YE models was 210 kgN/ha compared to 164 kgN/ha for the combined Proposed models (a 21.9 % drop in N used).
37. The increase in biological fixation in the Proposed model can be explained by the almost 22% decrease in N fertiliser applied.

Check the 'Other values' block reports for rainfall, drainage, and PAW.

38. The rainfall and soil information have been entered based on protocols for the location and soil type selected. YE 2021 model's soils areas are within 5% of Proposed models soils.

Production and stocking rate

39. The YE 2021 combined models have a revised stocking rate of 35.7 RSU/ha for dairy cows and the Proposed combined model have a revised stocking rate of 33.7 RSU/ha or a 5.6% decrease in RSU/ha.
40. Based on my experience and reviewing the NZ Dairy statistics for the 2019/2020 season, shows the average milk solids production on this property for the YE 21 model at 467.9 kgMS/cow and 1748 kgMS/ha is respectively higher than the Southland Regional average of 418 kg MS/cow and higher than the Southland Regional average of 1133 kgMS/ha. The Prop MP model at 464 kgMS/cow and 1567 kgMS/ha is respectively higher than the Southland Regional average of 418 kg MS/cow and higher than the Southland Regional average of 1133 kgMS/ha.
41. The stocking rate for YE 21 and Proposed models at 3.7 and 3.4 cows/ha are respectively greater than the Southland average for the 2019/2020 season of 2.76 cows/ha (Invercargill).
42. It is assumed that the YE 2021 models are based on actual year end information.

Select the pasture production in the scenario report and check pasture growth.

43. Long term pasture growth in Southland between 1979 and 2012 indicated that average pasture growth for newer pastures was 12.7T DM/ha/yr.
44. The dairy pasture production for the YE 21 model was 18.8 tDM/ha compared to 18.0 tDM/ha for the Proposed models which is respectively 32.4% and 29.4% higher than the Southland average.
45. YE 21 model: Allowing for the Overseer model assuming an average metabolisable energy (ME) value of 10.5 MJME/kgDM for pasture and South Island pastures have a ME value closer to 11 MJME/kgDM the models output of pasture growth would drop by 4.5%. Also, the YE 21 model has used actual data and is assumed that pasture renewal has occurred, and new pasture can account for a 15-20% improvement in pasture growth. Also 2.6 tDM/ha would come from the high N fertiliser applied (217 kgN/ha X 12 kgDM/kgN applied). This more than accounts for the high pasture growth.

46. Proposed model: The drop in pasture growth can be accounted for in the large drop in N fertiliser applied, decrease in pasture harvested and decrease in RSU/ha.
47. The animal distribution is modelled as 'No difference between blocks' and 'Same ratio of animal intake' with 'Default Grazing Months' for all models.
48. I have assumed an adequate level of robustness around the YE 2021 Models of actual Overseer Modelling as it is based on an actual farming system, and with that, I have assumed actual stock and fertiliser inputs used.

The data input protocols have been followed with some deviations. This leads to medium-high level of robustness for the relevant input data for example, climate, soils, and pasture type. Based on this, I consider that the robustness of the nutrient loss estimates for the Proposed model to be **medium-high**, this is due to the following:

Summary of Mitigations to address:

- Please explain why: The crop rotation final month for the Muir YE model has a final month entered as 'June' and 'September' was entered for the Proposed model.

References:

New Zealand Dairy Statistics 2019/2020. Produced by LIC and DairyNZ 2020.
<https://www.dairynz.co.nz/publications/dairy-industry/new-zealand-dairy-statistics-2019-20/>

Overseer Definition of Terms, previously Technical Note 6. May 2016
Overseer Technical Manual – Characteristics of Pasture, April 2015

Smith. L. C. 2012. Proceedings of the New Zealand Grassland Association 74: 147-152 (2012) *Long Term pasture growth patterns for Southland New Zealand: 1978-2012.*
www.grassland.org.nz/publications/nzgrassland_publication_2284.pdf

<https://www.dairynz.co.nz/media/5793235/average-pasture-growth-data-south-island-2020-v1.pdf>

Attachment 2

s92(1) Further Information Response



LANDPRO

Make the most of your land

23 February 2022

Landpro Reference: 20515
Council Reference: APP-20211740

Environment Southland
Private Bag 90116
Invercargill, 9840

Dear Jade

**Re: Request for Further Information under Section 92(1) of the Resource Management Act 1991 –
Application for Platinum Dairies Ltd**

In reference to your request for further information dated 9th February 2022, please find outlined below our response to this request.

1 Confirmation of the annual water abstraction volume.

43,800 m³ per year.

This is equivalent to 120L/cow/day.

2 Donna Corbin has estimated the size of beach barn and pad in her visual inspection reports. Confirm size of barn and pad area.

The areas stated in Donna Corbin's report are correct.

3 DESC that accurately reflects the proposal. The application states no milking between 20 June and 20 July, however the DESC supplied with the application has the milking season 25 July – 5 June.

The application is correct in stating that no milking will occur 20 June to 20 July. The DESC assessment has allowed for a contingency if there are some late milkers being dried off or early milkers due to early calving. With the possibility of some late milkers being dried off, the DESC assessment shows a 'worse case scenario' and allows for shed wash down water etc. to be account for to ensure there is sufficient storage. Similarly for any early milkers the DESC assessment shows a 'worse case scenario'.

Modelling a milking season from 20 June to 20 July would demonstrate that there is a less required storage than what the DESC assessment currently shows (4,214.40m³). There is 4,937.65m³ available,

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PO Box 302
Cromwell 9342
Central Otago, NZ
info@landpro.co.nz

landpro.co.nz

which is sufficient storage under the current DESC assessment, as well as if an additional DESC assessment was conducted with a milking season of 20 June to 20 July. We do not see it necessary to update the DESC assessment.

4 An explanation as to where the R1s and R2s were grazed in the past and where they will be grazed for the proposal. The Muir block has been used to graze replacement heifers and displacing this stock may result in an increase in contaminant losses elsewhere.

R1s and R2s were grazed off site with a third-party grazier under the **current farm system**. This location of the third-party grazier can change depending on contract availability and contract pricing etc.

Under the current system, there were 287 heifer calves on the milking platform in August and September. These moved to the Muir Block for October and November, before they are moved off farm. A small number (13) R1s come back onto the Muir Block for April to June before they were grazed off site.

Under the **proposed scenario** 265 calves are reared on farm and remain on farm until December/Jan. This is a slightly smaller amount than under the current scenario, but in the proposed scenario there are more calves on in December and January before going off to grazing. In both the current and proposed, all calves leave the property by the 1st of January. They are then grazed off site with a third-party grazier, before returning to farm as milking aged cows. As in the current scenario, the location of the third-party grazier can change depending on contract availability and contract prices and may be in the same catchment, a different catchment, or in a separate region, e.g., Otago.

5 Discussion on where the 23 R2 Jersey Bulls originated from, where they went once they were removed and what was their purpose in life?

Under the current scenario, 23 Jersey R2 bulls arrived on farm from April to June, these bulls were then sold to the works. This was a one-off situation due to market prices.

6 Confirmation that only 100 cows will remain on farm during winter.

Yes. Nutrient modelling has shown that 100 cows will be on farm for June. Cows start arriving back on farm late July. Nutrient modelling shows 260 cows arriving at the end of July. This number may slightly fluctuate depending on calving dates, as will the date they may arrive on farm. The intention is to only have 100 cows wintering on farm in winter.

7 Discussion on where the remaining 900 milking cows go for winter.

The remaining 900 milking aged cows are grazed off site with a third-party external grazier. These may be elsewhere in the same, or a different catchment, or may be in a different region, e.g., Otago. The grazing activity would be subject to a rule in the Proposed/Operative Regional Plan(s) and/or National Environmental Standard for Freshwater, or will be a permitted activity and is the responsibility of the third-party grazier.

8 An explanation as to how the proposed 10ha of IWG will meet regulation 26(4)(d) of the NES with regard to livestock being kept 5m away from any tile drain whilst intensive winter grazing

Good management practices work to reduce contaminants from intensive winter grazing, i.e., back fencing, grazing direction, portable troughs. These GMPs reduce the possibility of contaminants from entering tile drains.

The Ministry for the Environment is currently undertaking a review of intensive winter grazing regulations that are included within the Action for Healthy Freshwater Package.

A consultation document that was produced that included proposed changes to the intensive winter grazing regulations to address feedback received on implementation issues from the industry and key stakeholders. It is intended that these changes will make it more practical to comply with the regulations whilst still managing the effects of intensive winter grazing activity. The consultation process that closed on 7 October 2021 highlighted some important aspects of Regulation 26 that are now being reviewed by officials.

Part of this process identified an implementation issue with Regulation 26(4)(d).

The definition of 'drain' as noted in the National Planning Standards (2019) currently includes sub-surface drains as well as surface drains. Feedback received during the consultation is that this is impractical to implement, monitor and enforce.

The government have flagged this as a priority area they hadn't intended to capture under Regulation 26(4)(d). While there has been no official law change yet, there is a very strong acknowledgement by officials, and it's resulted in a strong consequent recommendation to Government to change it and exclude sub-surface drainage from Regulation 26(4)(d).

9 Page 52 and 54 of the FEMP identify some future riparian planting options and suggest developing a riparian planting plan. Can you please confirm if a riparian planting plan is going to be developed and implemented.

A riparian plan will be implemented in the future. There are no waterways on the Muir Block, any riparian planting will be on the existing milking platform.

All waterways are fenced and have a 2-3 m grass buffer.

10 An assessment of the proposal against s104D of the RMA.

S104D states that:

Despite any decision made for the purpose of notification in relation to adverse effects, a consent authority may grant a resource consent for a non-complying activity only if it is satisfied that either

- a) The adverse effects of the activity on the environment (other than any effect to which section 104(3)(a)(ii) applies) will be minor; or*
- b) The application is for an activity that will not be contrary to the objectives and policies of –*
- c) The relevant plan, if there is a plan but no proposed plan in respect of the activity; or*
- d) The relevant proposed plan, if there is a proposed plan but no relevant plan in respect of the activity; or*
- e) Both the relevant plan and the relevant proposed plan, if there is both a plan and a proposed plan in respect of the activity.*

The original application includes comprehensive assessment of statutory documents. The below relates to the land use consent for feed pads only.

The below provides an overview of the relevant objectives and policies of the relevant regional plan, this related to both the operative Regional Water Plan and the proposed Southland Water and Land Plan.

The original application comprehensively covers assessment against the National Policy Statement for Freshwater Management (NPSFM) and the National Environment Statement (NESFM).

Planning Document	Particularly relevant sections
Southland Regional Policy Statement	Objectives: RURAL.1 Policies: RURAL. 2, 5

Proposed Southland Water and Land Plan	Objectives: Policies: 13, 16, 40, 41
Te Tangi a Taurira	Section: 3.5.1

Objective RURAL.1 enables the sustainable management of Southland’s rural land resource. The proposed use of the feed pad ensures that the life supporting capacity of soils (RURAL.2) when they are vulnerable is not degrading, by allowing cows off-paddock during winter and adverse weather conditions.

The proposal is consistent with the PSWLP and use of the feed pad allows discharges of effluent to land when conditions are most suitable by taking cows off paddock during adverse weather conditions and during winter. This contributes to improving water quality and limits damage to soils when vulnerable. The use of the feed pads are included within the consent holder’s FEMP and GMPs are implemented, consistent with Policy 16.

The use of land for a feed pad is considered a discretionary activity under the PSWLP as they are located within 50m of another feed pad/lot on the same landholding. The three feed pads do not hold more than 120 cows each. They are not used for more than 3 continuous months. They are not located within 50m of the nearest waterway.

The use of land for a feed pad is considered a non-complying activity under the NES-FW as each feed pad holds cattle that is more than 4 months old and weights more than 120 kg AND the base of the feed pads are not sealed to a minimum permeability standard of 10^{-9} m/s.

Feed Pad 1 collects any additional effluent and it is stored in the effluent storage system. This feed pad requires resource consent under both the NES-FW and PSWLP as it is within 50m of feed pad 3.

Feed pad 2 does requires a consent under the NES-FW as it is not connected to the effluent system and does not have an impermeable base. It does not require a consent under the PSWLP.

Feed pad 3 is not connected to the effluent system and does not have an impermeable base. This feed pad requires resource consent under both the NES-FW and PSWLP as it is within 50m of feed pad 1.

As Feed pad 2 and Feed pad 3 are within 50m of each other, the activity is deemed to be a discretionary activity under the PSWLP. Each of the feed pads are considered non-complying under the NES-FW as the based is not sealed to a permeability of 10^{-9} m/s.

As feed pad 1 is connected to the effluent system and has 500mm of woodchip base, there is no chance of runoff, overland flow, or external pooling. Therefore, its proximity to Feed pad 3 has no detrimental effect. It is a stand-alone structure with appropriate mitigations in place, i.e., woodchip base and connection to effluent system.

Feed pad 2 has a woodchip base that will contain and soak up any effluent. The chances are any runoff, overland flow or external pooling are very low and the effects from the activity are likely less than minor due to the effluent being contained within the feed pad.

Feed pad 3 is not connected to the effluent system but has a woodchip base of 500mm. This woodchip base is sufficient in preventing any runoff, overland flow or external pooling. There is a row of well-developed trees between the two feed pads further mitigating any potential runoff between the two feed pads.

The consenting authority can be confident that with the woodchip base and Feed pad 1 being connected to the effluent system, any adverse effects of the activity on the environment will be less than minor, as required by s104D(a). The activities are not contrary to any policies or objectives in the regional plan, soil health and water quality is protected by taking care of soils when they are vulnerable to damage.

11 Address the concerns raised by the Nutrient Budget audit.

Modelling was completed for the actuals for the 2020/2021 season. The Overseer year runs from 1st of July to end of June – therefore in the Muir year end (YE) model, the crop blocks were modelled to reflect what actually occurred in the 2020/2021 season. This reflects it correctly but is a complex way to model it as it reflects the end of winter 20 and the start of winter 21.

In the proposed model, crops are modelled to reflect an average season, showing one winter to simplify modelling. Therefore, month end has been changed to September.

The Proposed Combined Overseer file has been rerun with the final month at June, showing two winters. This made minimal difference to the results:

	Proposed Combined v 6.4.2	Proposed Combined crop month end of June V6.4.2
Crop month end	September	June
Total Farm N Loss (kg)	16,541	16,368
N Loss/ha (kgN/ha/yr)	52	52
Total Farm P loss (kg)	399	398
P loss/ha (kgP/ha/yr)	1.3	1.3

12 Summary

I trust the information provided here answers your questions. Please do not hesitate to contact me if you have any further questions.

Kind Regards,

Matilda Ballinger
Planner

Attachment 3

Submission – Jenny Campbell and Dave Kennedy

Submission re Platinum Dairies Ltd

From:

Coal Action Murihiku

c/- Co- convenors Jenny Campbell, Dave Kennedy

c/-P O Box 71, 72 Devon St.

Mossburn 9747

03 248 6398

027 351 0180

jennycam@xtra.co.nz

20 April 2022

He iti, He pounamu

It may be small but it is very precious

Ko Oreti tōku awa
Ko Takitimu tōku maunga,
Ko Takitimu tōku waka
Ko Ngaitahu tōku iwi
Ko Te Rau Aroha tōku marae
No Mossburn tōku kainga
Ko Jenny Campbell ahau

He waka eke noa - We are all in this together.

Submitted online esconsents@es.govt.nz

The application [reference **APP-20211740**] is for resource consents to authorise proposed activities at **149 McKenzie Road, Lochiel**:

Degraded waterways in Murihiku

In light of this application I am very concerned about the current state of degraded waterbodies in Murihiku Southland including the Mataura River which the streams from the site ultimately drain into. The degraded state of the Murihiku waterways impacts negatively on the habitats of threatened native fish and is in urgent need of improvement.

Recent research shows the need for significant reductions in contaminant losses of nitrogen (N) phosphorus (P) and sediment are needed to improve the health of degraded waterways throughout Murihiku. Relevant science reports commissioned recently by Environment Southland for the People, Water and Land programme - Te Mana o te Tangata, te Wai, te

Whenua indicate that N & P need to reduce by 70% to meet the freshwater objectives in the next 25 years.

Mitigation

The Section 95 report (s95) demonstrates that the proposed activities will result in more than minor in parts and the mitigations proposed are not sufficient to mitigate the negative effects on freshwater quality.

Inappropriate dairying is known to have significant negative effects on freshwater quality with any intensification of such activity at odds with efforts to improve freshwater quality in Southland.

Climate Change

I recognise that the impact on climate change is not directly able to be assessed under the current RMA process, but I remain concerned that expanding dairy cow numbers will have a detrimental impact on the ability to reduce methane emissions to meet what is required under domestic and international agreements to keep warming below 1.5 degrees.

The resulting climate change if this is goal is not meet will have significant detrimental effects on Murihiku Southland, with effects such as increasing severity of storms and flooding, droughts and unseasonal variations impacting the ongoing viability of activities such as farming.

Allowing an increase in dairy cow numbers will contribute more greenhouse gas emissions via methane emissions and nitrous oxide emissions. This will contribute to climate change which is known to have a detrimental effect on Murihiku and ongoing viability of activities such as farming in the region.

The effects of these have not been addressed by the application and are at odds with Environment Southland's Draft Climate Action Plan 2020-2022 goal to support the Government's goal of net zero greenhouse gas emissions by 2050 and Local Government Leaders' Climate Change Declaration.

Inconsistent with the Act, NPS-FM, RPS, and pSWLP

Contaminant Mitigation

I consider the inadequate mitigation measures will not be able to deal with the additional effluent, N & P being produced by these extra animals. It will be years before new plantings of vegetation are established. During this time, increased losses of contaminants will continue to degrade the catchments adding cumulative effects to an already stressed ecosystem.

Mitigation through wetlands and riparian strip plantings are very special habitats and long term mitigation methods but they need to be in the ground now and well established before these proposed extra dairying proposals are introduced.

Groundwater quality

NZDWS nitrate levels are approx. 11mg/L at present but it is recommended that much lower nitrate levels, as occurs in eg Scandinavian countries approx. < 2 mg/L, are needed in light of recent research.

This information about the bores on this property is inadequate in my opinion. The readings given are not generally recent and there are relatively few monitoring bore sites.

The s95 Report highlights this

'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.'

There needs to be more recent data from more sites to be able to ascertain current levels in light of much more artificial nitrogenous fertiliser use over recent years.

Recent research has shown the connection between high nitrate levels in drinking water causing an increase in 'blue babies' and colo-rectal cancer. Murihiku has one of the highest rates of colo-rectal cancer in Aotearoa which reflects our high levels of artificial nitrogenous fertiliser use, especially on dairy farms.

Planning provisions

The planning provisions are laid out in the s 95 report. The application is inconsistent with several aspects of the National Policy Statement on Freshwater..

The proposed activities do not support the objectives in the Southland Regional Policy Statement in particular Objectives WQUAL.1 and WQUAL.2 which aim to halt the decline in water quality and improve water quality in Southland generally and in lowland areas specifically. The application does not meet the requirements of related Policies WQUAL.1 or WQUAL.2.

The s 95 report has detailed where the application does not meet the objectives and policies of the proposed Southland Water and Land Plan (pSWLP).

Allowing more discharges of pollution into waterways is at odds with several parts of the Resource Management Act, such as s7.

These aspects of s95 Report highlight the concerns I have and the lack of appropriate mitigation :-

'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 Phosphorus3 .’

‘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. ’

‘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.’

‘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 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.’

In my opinion this is not an adequate mitigation option

Consultation with Tangata Whenua, local Iwi

Consultation with Tangata Whenua, local Iwi appears not to have been undertaken. This is a statutory requirement and needs to be remedied. Māori values around fresh water need to be ascertained related to this application and possibly other aspects rectified.

These aspects of s95 Report highlight the concerns I have and the lack of consultation.

‘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 Tauria 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.’

This summary from s95 Report highlights the concerns I have

'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.'

We must learn from our mistakes and not continue to make them as we strive to reduce our impact on our very fragile environment

Titiro whakamuri, kōkiri whakamua

Look back and reflect so we can move forward.

Relief sought:

I seek that the application is declined.

If the application is not declined then improved mitigation measures must be put in place that independent experts verify will not result in any increase in contaminants in the receiving waterbodies and the mitigation measures contribute to a reduction in existing contaminants by the time the proposed increased dairying activities commence.

Hearing:-

I do wish to be heard

Nāu te rourou, nāku te rourou, ka ora te iwi.

From your food basket and my food basket there is plenty for everyone.

Rangimarie e hoa.

J A Campbell

QSM for the Environment,

Attachment 4

Amended Application following site visit



1 June 2022

Landpro Reference: 20515
Council Reference: APP-20211740

Environment Southland
Private Bag 90116
Invercargill, 9840

Dear Jade

Re: Site visit amendments

Following on from discussions at the site visit on 25th of May we have prepared the following amendments to provide clarity as to what was agreed upon.

1 Feedlot vs. stockholding area.

In reviewing the use of the calving pads, we have determined that they should be considered as 'stockholding areas' under the NES-FW, as opposed to the food lots stated in the application.

The calving pads are not used for more than 80 days in a 6-month period therefore do not meet the definition of 'feedlot' under the NES-FW.

2 Use of straw at calving pads.

At the site visit, it was discussed how 500mm straw or 500mm of woodchip may be used in the **covered areas** of the calving pads. 500mm off woodchip is used in the uncovered areas. The straw will soak up effluent in a similar manner to woodchip. Straw is preferable to woodchip in the covered areas for the cows to lay and calve on but either may be used.

3 Riparian Planting Plan

The applicant is happy a riparian planting plan to be conditioned. They are wanting to engage with Te Ao Mārama Inc. to develop a riparian planting plan and have approached TAMI to do so, whilst also seeing if we can address any concerns that TAMI has with the application. The applicant appreciates that TAMI is very busy and will happily engage if and when TAMI wishes. Alternatively, the applicant will find another suitability qualified body to assist with developing a riparian planting plan.

0800 023 318
13 Pinot Noir Drive
PO Box 302
Cromwell 9342
Central Otago, NZ
info@landpro.co.nz

landpro.co.nz

4 Fence area at the top of the waterway.

It was agreed that to mitigate the wet area at the top of the waterway, the area will be permanently fenced, and a buffer will form, filtering contaminants before they reach the waterway. This area has been identified on the below figure. Any planting of this area will form part of the riparian planting plan.



5 Summary

I trust that I have covered all of the matters raised at the site visit but please don't hesitate to let me know if there is anything that I have missed.

Kind Regards,

Matilda Ballinger

Matilda Ballinger
Planner

Attachment 5

Draft Consent Conditions

Discharge Permit (Farm Dairy Effluent) – AUTH-2011740-01

Water Permit (Groundwater) – AUTH-20211740-02

Land Use Consent (Feed pad)- AUTH-20211740-03

Land Use Consent for Farming – AUTH-20211740-04



Cnr North Road and Price Street
 (Private Bag 90116
 DX YX20175)
 Invercargill

Telephone (03) 211 5115
 Fax No. (03) 211 5252
 Southland Freephone No. 0800 76 88 45

Discharge Permit

Under Section 104B of the Resource Management Act 1991, a resource consent is granted by the Southland Regional Council to **Platinum Dairies Limited** of **731 Benmore-Otapiri Road, RD 2, Winton 9782** from **Date Granted 2022**.

Please read this Consent carefully, and ensure that any staff or contractors carrying out activities under this Consent on your behalf are aware of all the conditions of the Consent.

Details of Permit

Purpose for which permit is granted:	To discharge agricultural effluent to land from up to 1,000 cows via low rate pod system and slurry tanker.
Location	<ul style="list-style-type: none"> - site locality 149 McKenzie Road, Lochiel - map reference NZTM2000 1242300E 4870330N - physiographic zones Gleyed - groundwater zones Makarewa and Lower Oreti - catchments Makarewa River - FMU Oreti
Legal description of land at the site:	Section 9 Block IX New River HUN, Section 10 Block IX New River HUN, Section 11 Block IX New River HUN, Section 12 Block IX New River HUN, Section 13 Block IX New River HUN, Section 22 Block IX New River HUN, Section 23 Block IX New River HUN, Section 24 Block IX New River HUN, Lot 1 DP 13715.
Expiry date:	31 December 2030

Schedule of Conditions

General conditions

1. This resource consent shall not be exercised until Discharge Permit AUTH-302423 is surrendered or has expired.

2. This consent shall be exercised in conjunction with Land Use Consent AUTH-20211740-04.
3. This consent authorises the discharge of dairy shed effluent, silage leachate and feed pad effluent (“agricultural effluent”) onto land, via a land disposal system consisting of a stone trap, sump, mechanical separator and a synthetically lined effluent storage pond to low rate pods and slurry tanker, as described in the application (APP-20211740) for resource consent dated 7 December 2021¹ and further information dated 23 February 2022². The activity shall be limited to:
 - (a) the discharge to land of agricultural effluent generated from milking of up to 1,000 cows up to twice per day;
 - (b) the discharge to land of agricultural effluent via a low rate pod system;
 - (c) the discharge to land of agricultural effluent via a high rate slurry tanker as a contingency measure;
 - (d) the discharge of agricultural effluent to an area of 213 hectares as per the plan attached as Appendix 1;
 - (e) the discharge to land of calving pad effluent generated from the use of a calving pad between 15 July and 15 October (inclusive) and during adverse weather conditions; and
 - (f) The discharge of contaminants to land associated with the conversion of land on a farm to dairy farm land.

Advice Note: Routine monitoring inspections of this consent may occur up to two times a year. This number does not include any other inspections required by other resource consents.

4. Notwithstanding these conditions, this permit shall be exercised in accordance with the Collected Agricultural Effluent Management Plan. Where there is inconsistency between the Collected Agricultural Effluent Management Plan and the conditions of this consent, the conditions of this consent shall prevail.
5. The discharge shall not exceed:
 - (a) a depth of application of 10 millimetres for each individual application, and an instantaneous rate of 10 millimetres per hour via a low rate pod system; and
 - (b) a depth of application of 5 millimetres for each individual application via a slurry tanker.
6. The minimum return period for the discharge of agricultural effluent to land shall be 28 days.
7. The discharge shall not occur when the moisture content of the soils is at or above field capacity.
8. Nitrogen loading onto any land area as a result of the exercise of this consent shall not exceed 150 kilograms of nitrogen per hectare per year.

Exclusions

9. This consent does not authorise the discharge of:
 - (a) dairy shed effluent collected during 6 June to 24 July; and
 - (b) effluent collected by an underpass.

¹ Environment Southland Document ID: A724135

² Environment Southland Document ID: A749323

10. No discharge shall occur within:
- (a) 20 metres of any surface watercourse;
 - (b) 100 metres of any water abstraction point;
 - (c) 200 metres of any place of assembly or dwelling not on the subject property; and
 - (d) 20 metres from any property boundaries.

Where there is inconsistency between the plan attached as Appendix 1 and the conditions of this consent, the conditions of this consent shall prevail.

11. The stored or discharged agricultural effluent shall not enter any surface watercourse in any way, including:
- (a) directly;
 - (b) indirectly;
 - (c) by overland flow;
 - (d) via entrainment by stormwater or run-off; or
 - (e) via a pipe.
12. The stored or discharged agricultural effluent shall not:
- (a) form ponds or flow on the land surface, or
 - (b) cause contamination of water.
13. The stored or discharged agricultural effluent shall not cause any odour beyond the boundary of the site (see Appendix 1) that is offensive or objectionable in the opinion of the Council's Compliance Officer.
14. Spray drift beyond the boundary of the site shall not occur.

Effluent storage

15. The discharge shall occur via an agricultural effluent storage facility of between 4,214 cubic metres and 4,937 cubic metres capacity.
16. The Consent Holder must maintain at least 500 mm of freeboard in the agricultural effluent storage facility at all times.

System management

17. The Consent Holder shall notify the Consent Authority the identity of the Person in Charge of the agricultural effluent disposal system:
- (a) prior to the first exercise of this consent, and
 - (b) no more than five working days following the appointment of any new Person in Charge.
18. The Consent Holder shall install and maintain:
- (a) an operational alarm that alerts the Person in Charge to any system failure that could cause the over-application, overflow or spilling of agricultural effluent (e.g. sudden pressure drop, irrigator stoppage); and / or
 - (b) an operational automatic switch-off system that prevents any over-application or spilling of agricultural effluent.

19. Where the agricultural effluent reticulation system is installed in such a way that effluent can be siphoned when pumping ceases, the Consent Holder shall install and maintain an anti-siphon device in the agricultural effluent pipeline.
20. In the event of the failure or mismanagement of the agricultural effluent disposal system, or any other event that may result in a discharge of agricultural effluent that may have significant adverse effect on water quality, particularly in the region of the abstraction point of a registered drinking-water supply, the Consent Holder shall notify, as soon as reasonably practicable, the following:
 - (a) the Consent Authority (ph 03 211 5115 or 03 211 5225 after hours); and
 - (b) Southland District Council (ph 0800 732 732).

Collected Agricultural Effluent Management Plan

21. Prior to the first exercise of this consent, the Consent Holder shall prepare and submit to the Consent Authority a Collected Agricultural Effluent Management Plan. The Collected Agricultural Effluent Management Plan shall:
 - (a) provide concise and clear direction to the Person in Charge and other staff on the operation of the agricultural effluent system;
 - (b) identify environmental risks of agricultural effluent discharges specific to the farm including, but not limited to, locations of drains, surface waterways, sub-surface drainage and critical source areas in the agricultural effluent disposal area;
 - (c) identify how the above environmental risks are avoided;
 - (d) describe how each component of the agricultural effluent system is maintained and have regard to the information provided in the pond storage calculations provided in the application;
 - (e) describe how agricultural effluent in storage is managed;
 - (f) describe how agricultural effluent is managed when soils are at or above field capacity and/or during adverse weather conditions; and
 - (g) describe how the stormwater diversion on the system is set up and managed.
22. Annually or more frequently, the Collected Agricultural Effluent Management Plan shall be reviewed and the outcome of the review provided to the Consent Authority within one month.
23. If amended at any time, the most recent version of the Collected Agricultural Effluent Management Plan shall be provided to the Consent Authority within one month of the amendment.

Advice note: *The Collected Agricultural Effluent Management Plan required by Condition 21 may be incorporated into the Farm Environmental Management Plan required by Land Use Consent AUTH-20211740-04.*

Review of consent

24. The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions of this consent during the period 1 February to 30 September each year, or within two months of any enforcement action being taken by the Consent Authority in relation to the exercise of this consent, for the purposes of:
- (a) determining whether the conditions of this permit are adequate to deal with any adverse effect on the environment, including cumulative effects, which may arise from the exercise of the permit, and which it is appropriate to deal with at a later stage, or which become evident after the date of commencement of the permit;
 - (b) ensuring the conditions of this consent are consistent with any National Environmental Standards Regulations, relevant plans and/or the Environment Southland Regional Policy Statement;
 - (c) amending the monitoring programme to be undertaken;
 - (d) adding or adjusting compliance limits;
 - (e) ensuring the Oreti Freshwater Management Unit meets the freshwater objectives and freshwater quality limits set in an operative regional plan or National Policy Statement for Freshwater Management; and
 - (f) requiring the Consent Holder to adopt the best practicable option to remove or reduce any adverse effect on the environment arising as a result of the exercise of this permit.

for the **Southland Regional Council**

Bianca Sullivan
Independent Hearing Commissioner

Notes:

1. *The Consent Holder shall pay an annual administration and monitoring charge to the Consent Authority, collected in accordance with Section 36 of the Resource Management Act, 1991, payable in advance on 1 July each year.*
2. *In accordance with Section 125(1)(a) of the Resource Management Act, this consent will lapse after a period of five years after the date of commencement unless it is given effect to or an application is made to extend the lapse period before the consent lapses.*
3. *In accordance with section 126 of the Resource Management Act, 1991, this consent may be cancelled by the Consent Authority if not exercised for a continuous period of 5 years or more.*
4. *The Consent Holder is reminded that they may apply at any time under Section 127 of the Act to have any condition of this consent changed except that which specifies the expiry date of this consent.*
5. *If you require a replacement permit upon the expiry date of this permit, any new application should be lodged at least 6 months prior to the expiry date of this permit. Applying at least 6 months before the expiry date may enable you to continue to exercise this permit until a decision is made, and any appeals are resolved, on the replacement application.*
6. *Dairy shed effluent should not be discharged onto any land area that has been grazed within the previous 5-10 days. Where there has been significant damage to soil during grazing, it is recommended that effluent not be applied until that damage has been repaired.*
7. *Measuring the moisture content of the soil to determine when the soils are at or above field capacity can be done by either actual monitoring on site or by reference to the appropriate Council monitoring site. The Council's soil moisture monitoring sites can be viewed at <http://gis.es.govt.nz/> and following the "Soil Moisture Map" link.*
8. *Ponding is the accumulation of effluent on the soil surface resulting from the application of effluent to saturated soils, or the application of effluent inducing saturated soil conditions.*
9. *Extreme caution should be taken when applying nitrogen fertiliser to the effluent disposal area. It is recommended that a nutrient budget is used to check that nitrogen and potassium application rates to the effluent disposal area are not excessive.*
10. *The Consent Holder should display, in a prominent place in the dairy shed, a copy of the resource consent and relevant limits about the operation of the effluent disposal system that must be complied with.*
11. *Storage systems should be operated at low levels when conditions for effluent disposal are suitable in order to maintain storage for wet weather periods. In particular, storage systems should be emptied in late summer/early autumn to ensure sufficient storage capacity for the following late winter/early spring period.*





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Water Permit

Under Section 104B of the Resource Management Act 1991, a resource consent is granted by the Southland Regional Council to **Platinum Dairies Limited** of **731 Benmore-Otapiri Road, RD 2, Winton 9782** from **Date Granted 2022**.

Please read this Consent carefully, and ensure that any staff or contractors carrying out activities under this Consent on your behalf are aware of all the conditions of the Consent.

Details of Permit

Purpose for which permit is granted:	To take and use groundwater for the purpose of stock drinking water and dairy shed wash down
Location	149 McKenzie Road, Lochiel
- site locality	NZTM2000 1242296E 4870329N
- map reference	NZTM2000 1241094E 4870827N
- well number	E46/0175 and E46/1145
- groundwater zone(s)	Makarewa and Lower Oreti
- catchment	Makarewa River
- Physiographic zone	Gleyed
Legal description of land at the site:	Section 22 Block IX New River HUN and Section 9 Block IX New River HUN
Expiry date:	31 December 2030

Schedule of Conditions

1. This consent shall not be exercised until Water Permit AUTH-302424 is surrendered or has expired.

2. This permit authorises the taking of groundwater at the location specified above. The rate of abstraction shall not exceed:

- (a) 2 litres per second;
- (b) 120,000 litres per day; and
- (c) 43,800,000 litres per year.

Advice Note

The Consent Holder must ensure that the bore that water abstraction occurs from can meet the following conditions:

- (a) *The bore or well design and headwork's prevent:*
 - (i) *the infiltration of contaminants; and*
 - (ii) *the uncontrolled discharge or leakage of water to the ground surface or between aquifers.*

Should the bore not meet the above conditions, the Consent Holder shall apply to the Consent Authority for a Resource Consent for the use and maintenance of the bore.

3. Prior to the first exercise of this consent, the Consent Holder shall install a backflow prevention device or take other appropriate measures to ensure water and/or contaminants cannot return to the water source.

4.

- (a) The Consent Holder shall have and maintain a water meter to record the water take, within an error accuracy range of +/-5% over the meter's nominal flow range. The Consent Holder shall forward a copy of the installation certificate to the Consent Authority within one month of installing the water meter.
- (b) The water meter shall be installed in a straight length of pipe, before any diversion of water occurs. The straight length of pipe shall be part of the pump outlet plumbing, easily accessible, have no fittings and obstructions in it. There shall be a straight length of pipe on either side of the water meter, on the upstream side there shall be a distance that is 10 times the diameter of the pipe and on the downstream side there shall be a distance of five times the diameter of the pipe.
- (c) The Consent Holder shall ensure the full operation of the water meter at all times during the exercise of this consent. All malfunctions of the water meter during the exercise of this consent shall be reported to the Consent Authority within five working days of observation and appropriate repairs shall be performed within five working days. Once the malfunction has been remedied, a Water Measuring Device Verification Form completed with photographic evidence must be submitted to the Consent Authority within five working days of the completion of repairs.
- (d)
 - (i) If a mechanical insert water meter is installed it shall be verified for accuracy each and every year from the first exercise of this consent.
 - (ii) Any electromagnetic or ultrasonic flow meter shall be verified for accuracy every five years from the first exercise of this consent.

- (iii) Each verification shall be undertaken by a Consent Authority approved operator and a Water Measuring Device Verification Form shall be completed and supplied to the Consent Authority with receipts of service. These shall be supplied within five working days of the verification, and at any time upon request.
 - (e) The Consent Holder shall maintain a record of the total volume of water abstracted each month. The Consent Holder shall provide this record to the Consent Authority by 31 May each year and at any other time on request.
- 5. Prior to the exercise of this consent, the Consent Holder shall notify the Consent Authority of the person who is in charge of the operation this consent. If the person in charge changes during the term of this consent, the Consent Holder shall notify the Consent Authority of the new operator no later than five working days after that person takes responsibility.
- 6. The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions of this consent during the period 1 February to 30 September each year, or within two months of any enforcement action being taken by the Consent Authority in relation to the exercise of this consent, or on receiving monitoring results, for the purposes of:
 - (a) adjusting the consented rate or volume of water under Condition 2, should future changes in water use indicate that the consented rate or volume is not able to be fully utilised;
 - (b) determining whether the conditions of this consent are adequate to deal with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage;
 - (c) ensuring the conditions of this consent are consistent with any National Environmental Standards Regulations, National Policy Statement, Water Conservation Order, relevant plans and/or any relevant Regional Policy Statement; or
 - (d) adjusting or altering the method of water take data recording and transmission.

for the **Southland Regional Council**

Bianca Sullivan
Independent Hearing Commissioner

Notes:

1. *In accordance with Section 125(1)(a) of the Resource Management Act, this consent shall lapse after a period of five years after the date of commencement unless it is given effect to or an application is made to extend the lapse period before the consent lapses.*
2. *Section 126 of the Resource Management Act provides for this resource consent to be cancelled if the consent has been exercised in the past but has not been exercised during the preceding five years.*
3. *If you require a replacement permit upon the expiry date of this permit, any new application should be lodged at least six months prior to the expiry date of this permit. Applying at least six months before the expiry date may enable you to continue to exercise this permit until a decision is made, and any appeals are resolved, on the replacement application.*
4. *The Consent Holder shall pay an administration charge to the Consent Authority collected in accordance with Section 36 of the Resource Management Act, payable in advance on 1 July each year.*

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Land Use Consent

Under Section 104B of the Resource Management Act 1991, a resource consent is granted by the Southland Regional Council to **Platinum Dairies Limited** of **731 Benmore-Otapiri Road, RD 2, Winton 9782** from **Date Granted 2022**.

Please read this Consent carefully, and ensure that any staff or contractors carrying out activities under this Consent on your behalf are aware of all the conditions of the Consent.

Details of Consent

Purpose for which permit is granted: Use of land for three calving pads

Location - groundwater zones Makarewa and Lower Oreti
- FMU Oreti
- physiographic zone Gleyed
- catchments Makarewa River

Expiry date: **31 December 2030**

Schedule of Conditions

1. This resource consent authorises the use of land for three calving pads as described in the application for resource consent dated 7 December 2021¹. The activity shall be limited to:
 - (a) the use of land for three calving pads for up to 360 cows combined between 15 July and 15 October (inclusive); and
 - (b) the use of the land for three calving pads during adverse weather conditions.
2. This consent shall be exercised in conjunction with Discharge Permit AUTH-20211740-01 (or any subsequent variation versions) and Land Use Consent AUTH-20211740-04 (or any subsequent variation versions).

¹ Environment Southland Document ID: A724135

3. The calving pads shall be located as described in the tables below:

Legal description	Section 9 Block IX New River HUN
Map Reference of Calving Pad #1 (NZTM 2000)	1242178E 4870308N
Property address	149 McKenzie Road

Legal description	Section 9 Block IX New River HUN
Map Reference of Calving Pad #2 (NZTM 2000)	1242175E 4870247N
Property address	149 McKenzie Road

Legal description	Section 22 Block IX New River HUN
Map Reference of Calving Pad #3 (NZTM 2000)	1241015E 4870932N
Property address	777 Winton Lorneville Highway

4. The calving pads shall not be located within:

- (a) 50 metres of any surface watercourse;
- (b) 70 metres of any water abstraction point;
- (c) 200 metres of any place of assembly or dwelling not on the subject property;
- (d) 20 metres of any mapped tile drains; and
- (e) 20 metres from any property boundaries.

5. Calving pad #1 shall be:

- (a) no greater than 1,295 m² in area;
- (b) constructed with drains under the base to capture effluent generated on the calving pad; and
- (c) constructed with a minimum depth of 500 mm of wood-based material across the base and nibbed edges to prevent overland flow beyond the perimeter of the calving pad.

6. Calving pad #2 shall be:

- (a) no greater than 800 m² in area;
- (b) constructed with a minimum depth of 500 mm of straw and/or wood-based material across the base of the covered area of the pad; and
- (c) constructed with a minimum depth of 500 mm of wood-based material across the base and nibbed edges to prevent overland flow beyond the perimeter of the of the uncovered area of the pad.

7. Calving pad #3 shall be:

- (a) no greater than 1,560 m² in area;
- (b) constructed with a minimum depth of 500 mm of straw and/or wood-based material across the base of the covered area of the pad; and
- (c) constructed with a minimum depth of 500 mm of wood-based material across the base and nibbed edges to prevent overland flow beyond the perimeter of the of the uncovered area of the pad.

8. Liquid effluent generated on the calving pad #1 shall be captured by the subsurface drainage and drain to the effluent system authorised by Discharge Permit AUTH-20211740-01.

9. This consent does not authorise the discharge of any liquid effluent or animal and vegetative waste produced as a result of the activity authorised by this consent being undertaken.

Advice Note: *The Consent Holder shall discharge:*

- (a) *the calving pad sludge and associated vegetative matter in accordance with Rule 38 of the Proposed Southland Water and Land Plan (Decisions Version) or any subsequent versions; and*
- (b) *the liquid effluent generated from calving pad #1 in accordance with the conditions of Discharge Permit AUTH-20211740-01 (or any subsequent variation versions).*
10. The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the consent holder of its intention to review the conditions of this consent during the period 1 February to 30 September each year, or within two months of any enforcement action being taken by the Consent Authority in relation to the exercise of this consent, or on receiving monitoring results, for the purposes of:
- (a) determining whether the conditions of this permit are adequate to deal with any adverse effect on the environment, including cumulative effects, which may arise from the exercise of the permit, and which it is appropriate to deal with at a later stage, or which become evident after the date of commencement of the permit;
- (b) ensuring the conditions of this consent are consistent with any National Environmental Standards Regulations, relevant plans and/or the Environment Southland Regional Policy Statement; or
- (c) ensuring the Oreti Freshwater Management Unit meets the freshwater objectives and freshwater quality limits set in an operative regional plan pursuant to Policy A1 of the National Policy Statement for Freshwater Management.

for the **Southland Regional Council**

Bianca Sullivan
Independent Hearing Commissioner

Notes

1. *In accordance with Section 125(1)(a) of the Resource Management Act, this consent shall lapse after a period of five years after the date of commencement unless it is given effect to or an application is made to extend the lapse period before the consent lapses.*
2. *The consent holder shall pay an annual administration and monitoring charge to the Consent Authority, collected in accordance with Section 36 of the Resource Management Act, 1991. This charge may include the costs of inspecting the site up to one time each year (or otherwise as set by the Consent Authority's Annual Plan).*



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Land Use Consent

Under Section 104B of the Resource Management Act 1991, a resource consent is granted by the Southland Regional Council to **Platinum Dairies Limited** of **731 Benmore-Otapiri Road, RD 2, Winton 9782** from **Date Granted 2022**.

Please read this Consent carefully, and ensure that any staff or contractors carrying out activities under this Consent on your behalf are aware of all the conditions of the Consent.

Details of Consent

Purpose for which permit is granted:	Use of land for farming
Location	Makarewa and Lower Oreti
- groundwater zones	Oreti
- FMU	Gleyed
- physiographic zones	Makarewa River
- catchments	
Expiry date:	31 December 2030

Schedule of Conditions

1. Except as modified by conditions of resource consent, the activities authorised by this resource consent shall be carried out in general accordance with the application for resource consent (APP-20211740)¹ and all subsequent information provided during the application and the Farm Environmental Management Plan required by this consent.
2. For the avoidance of doubt, in the event that any inconsistency between the conditions of resource consent and the information and plans, including the Farm Environmental Management Plan (FEMP), submitted as part of the application, the conditions of resource consent shall prevail.

¹ Environment Southland Document ID: A724135

3. The use of land for farming shall occur on the landholding at 149 McKenzie Road, Lochiel, as shown on the plan attached as Appendix 1, and consisting of:
 - (a) a block of land referred to as the “dairy platform”, at or about map reference (NZTM 2000) 1242347E 4870390N and comprising Section 9 Block IX New River HUN, Section 10 Block IX New River HUN, Section 11 Block IX New River HUN, Section 12 Block IX New River HUN, Section 13 Block IX New River HUN, Section 22 Block IX New River HUN, Section 23 Block IX New River HUN, Section 24 Block IX New River HUN, Lot 1 DP 13715; and
 - (b) a block of land referred to as the “Muir Block”, at or about map reference (NZTM 2000) 1240824E 4871349N and comprising Lot 2 DP 544352 and Lot 2 DP 13820.
4. The farming activities shall be limited as follows:
 - (a) a maximum milking herd of no more than 1,000 mature age cows;
 - (b) grazing 265 R1 heifers;
 - (c) intensive winter grazing of a maximum of 100 mature age milking cows on a maximum of 10 ha of crop.

Advice Note:

Routine monitoring inspections of this property may occur up to once a year. This number does not include any other inspections required by other resource consents.

5. When intensive winter grazing is occurring on any part of the landholding, the Consent Holder shall:
 - (a) maintain a 5 metre buffer at all times between any surface water way (river, artificial watercourse, modified watercourse and natural wetland) and the area being grazed;
 - (b) progressively graze stock from the top to the bottom of any slope, where this is not possible a 20 metre “last bite” strip shall be left at the bottom of the slope to be grazed last;
 - (c) back fence cattle at all times to prevent the stock re-entering previously grazed areas;
 - (d) provide transportable water trough(s) in or near the areas being grazed;
 - (e) place supplementary feed (including silage, baleage or hay) in portable feeders in the area being grazed;
 - (f) critical source areas (including swales) within the area being grazed, shall be uncultivated and ungrazed; and
 - (g) graze cattle in mobs of no more than 120.

Advice Note:

Intensive winter grazing is defined as the grazing of stock between 1 May and 30 September (inclusive) on forage crops (including brassica, beet and root vegetable crops), excluding pasture and cereal crops.

6. The Consent Holder shall notify the Consent Authority the identity of the Person in Charge of the landholding:
 - (a) prior to the first exercise of this consent, and
 - (b) no more than five working days following the appointment of any new Person in Charge.

Exclusions

7. Intensive winter grazing shall not occur on any slope over 10 degrees.
8. The landholding must not be grazed by mature age female beef cows and mature age beef steers at any time of the year.

Advice Note:

Beef breed cattle are defined as any cattle not defined as dairy cattle or dairy support cattle in the National Environmental Standards for Freshwater (2020) and includes dairy breed bulls being farmed for meat as opposed to breeding with dairy cattle.

Nutrient Management

9. From the first exercise of this Consent, the Consent Holder shall implement a soil testing regime to determine the soil fertility status over the landholding and to develop fertiliser recommendations based on the soil testing results.
10. The Consent Holder shall maintain a record of their soil testing regime, soil testing results and fertiliser recommendations required by Condition 9 and provide this record to the Consent Authority (EScompliance@es.govt.nz) by 30 September each year.
11. The Consent Holder shall:
 - (a) manage the application of fertiliser in accordance with:
 - (i) the Code of Practice for Nutrient Management (With Emphasis of Fertiliser Use) Fertiliser Association, 2013, ISBN 978-0-47328345-2"; or
 - (iii) any subsequent updates;
 - (b) not apply fertiliser:
 - (i) to land during the period 1 June - 31 July inclusive;
 - (ii) within 10 m of a surface water body;
 - (iii) within 10 m of any wetland boundary;
 - (iv) within 20 m of any bore;
 - (v) when soil temperature is at or below six degrees Celsius;
 - (vi) when soil moisture capacity is exceeded; and
 - (vii) directly to land within a riparian strip/margin.
12. The Consent Holder shall:
 - (a) take representative soil samples at least once every two years and have those samples analysed for Olsen P by a laboratory with IANZ accreditation;
 - (b) by 30 September each year in 2024, 2026, 2028 and 2030 provide the results to the Consent Authority (EScompliance@es.govt.nz); and
 - (c) if Olsen P levels exceed a range of 26 - 32 the Consent Holder must reduce the amount of P fertiliser being applied to the landholding to ensure the risk of P loss is reduced. This reduction in P fertiliser shall be noted in the records required by Condition 28(a).

Nutrient Modelling

13. The Consent Holder must ensure that nitrogen and phosphorus losses to water from farming activities undertaken on the land are maintained at, or below the baseline contaminant loss rates of:
- (a) 52 kilograms per hectare per year nitrogen;
 - (i) as estimated by the four-year rolling average loss rates using OVERSEER FM[®] version 6.4.3, undertaken in accordance with the generally accepted best practice modelling including the applicable Best Practice Data Input Standards/Overseer FM User Guide.
 - (b) 1.3 kilogram per hectare per year phosphorus;
 - (i) as estimated by the four-year rolling average loss rates using OVERSEERFM[®] version 6.4.3, undertaken in accordance with the generally accepted best practice modelling including the applicable Best Practice Data Input Standards/Overseer FM User Guide; and
 - (ii) information from published New Zealand and Overseas research to estimate the additional phosphorus loss mitigation, beyond that modelled in Overseer, that is likely to occur as a result of the mitigation being implemented in accordance with the FEMP required under this resource consent.

For the purposes of this resource consent, the four-year rolling average is defined as the average of the most recent four consecutive years' results starting from 1 July 2022.

14. Each and every year for the duration of this consent, using the current version of OverseerFM and in accordance with the generally accepted best practice modelling and the current Best Practice Data Input Standards, the Consent Holder shall:
- (a) model the nitrogen and phosphorus loss rates for the previous year from 1 July to 30 June inclusive;
 - (b) calculate the four-year rolling average of nitrogen and phosphorus loss rates; and
 - (c) re-model the baseline contaminant loss rates specified in Condition 13 in the current version of Overseer.
15. The re-modelled baseline contaminant loss rates, modelled in accordance with Condition 14(c) shall supersede and replace the baseline contaminant loss rates specified in Condition 13.
16. A report must be provided to the Consent Authority by 30 September each year summarising the results of Overseer nitrogen and phosphorus loss modelling required by Condition 14. The report must include:
- (a) a review of the Overseer input data to ensure that the annual nutrient budget reflects the farming system;
 - (b) an explanation of any differences between that nutrient budget and the annual nutrient budget of all previous years of farming undertaken under this consent;
 - (c) a comparison of the four-year rolling average nitrogen and phosphorus losses with the applicable baseline contaminant loss rates; and
 - (d) the names and summaries of the relevant qualifications and experience of the person(s) who prepared and (if relevant) reviewed the nutrient budget.

17. All nutrient loss modelling required by this consent must be undertaken by a person who is a Certified Nutrient Management Advisor (CNMA) under the Nutrient Management Advisor Certification Programme (NMACP).
18. The Consent Holder may use an alternative model that has been demonstrated to be equivalent to Overseer provided:
 - (a) the evidence to demonstrate equivalence is provided to the Consent Authority at least six months prior to submitting the relevant annual report as required by Condition 16; and
 - (b) the use of the alternative model is approved by the Chief Executive of the Consent Authority.

Mitigation Measures

19. Prior to the exercise of this consent, the Consent Holder shall inspect all bridges and culverts and, where necessary, undertake improvements to the structures to ensure that there is no runoff of agricultural effluent to surface water.
20. The Consent Holder shall undertake maintenance of the existing and any new dairy lanes to ensure they are contoured to ensure that any run-off occurs onto vegetated areas where it will not enter any surface water body.
21. Except for crossings of surface waterways, the Consent Holder shall not construct any new dairy lanes within 20 metres of a surface waterbody.
22. The Consent Holder shall:
 - (a) permanently fence the Critical Source Area to exclude stock access, as detailed in the application, at or about NZTM2000 1242304E 4971087N, as per Appendix 2; and
 - (b) provide written confirmation, along with date stamped photos, of the permanently fenced Critical Source Area to the Consent Authority (EScompliance@es.govt.nz) by 1 June 2023.
23. The Consent holder shall prepare and implement a Riparian Planting Plan for the farm that includes the use of native plants. This plan shall be prepared within six months, and begin being implemented within 12 months, of the consent being granted and be incorporated into the Consent Holder's Farm Environmental Management Plan required by Condition 30.
24. The Riparian Planting Plan required by Condition 23 shall include, but not be limited to the areas below:
 - (a) the planting of the CSA at the head of the property's main waterway, as detailed in the application, at or about NZTM2000 1242304E 4971087N, as per Appendix 2;
 - (b) the planting of both sides of the waterway that runs from paddocks 16/17 to the southern property boundary, beginning at or about NZTM 1242297E 4871064N and finishing at or about 1242031E 4870087N, as per Appendix 2; and
 - (c) the planting of the large pond area in paddock 25 and both sides of the waterway that runs from paddocks 25/26 to paddocks 21/23, beginning at or about NZTM 1241883E 4870714N and finishing at or about 1242045E 4970228N, as per Appendix 2.

25. The Consent Holder shall provide written confirmation, along with date stamped photos, of the planting required by condition 24 to the Consent Authority (EScompliance@es.govt.nz) annually until completion by 1 June 2025.
26. Following intensive winter grazing on all areas of the landholding, the Consent Holder shall re-sow at the earliest opportunity based on paddock suitable conditions and as soon as practicable to minimise the amount of time that bare ground is exposed.
27. The Consent Holder shall cultivate;
 - (a) with the contour of the land being used for cultivation and shall not cultivate up and down the slope; and
 - (b) no less than 5 metres from the outer edge of any surface water body or natural wetland unless for the purpose of renewing or establishing pasture in accordance with Rule 25(b) of the Proposed Southland Water and Land Plan (Decisions Version), or any subsequent replacement versions.

Records and Reporting

28. The Consent Holder must have and maintain a record of the following practices undertaken on-farm for each year between 1 July and 30 June:
 - (a) fertiliser application, including rates and dates of application;
 - (b) types of crops and total area of cropping, including winter feed/forage crops;
 - (c) cultivation methods;
 - (d) stock units with references to type, age and breed;
 - (e) effluent application areas; and
 - (f) all other inputs to the OVERSEER[®] nutrient budgeting model.
29. These records required by Condition 28 shall be provided to the Consent Authority (EScompliance@es.govt.nz) by 31 July each year.

Farm Environmental Management Plan

30. The Consent Holder shall have and maintain a Farm Environmental Management Plan (FEMP). The FEMP shall, in accordance with Appendix N of (Decisions Version) the Southland Water and Land Plan (or any replacement Appendix in an updated version of the plan), demonstrate how the following outcomes are to be achieved:
 - (a) nutrients are used efficiently and nutrient loss to water is minimised;
 - (b) contaminant losses from critical source areas are reduced;
 - (c) cultivation is undertaken in a manner that minimises the movement of sediment and phosphorus to waterways;
 - (d) intensive winter grazing occurs in a way that minimises the loss of sediment, phosphorus and microbiological contaminants to waterways;
 - (e) agricultural effluent and other discharges are managed in a way that avoids or minimises the loss of contaminants to water; and
 - (f) Irrigation water is applied to meet plant demands and minimises the risk of leaching and run-off.

31. The FEMP required by Condition 30 shall also include, but not be limited to:
- (a) a site map showing the location of critical source areas; physiographic zones; permanent or intermittent rivers, streams, lake, drains, ponds or wetlands; where known the location and depth of any subsurface drainage systems including outlets, riparian vegetation and fences adjacent to waterways and stock access points across waterways;
 - (b) details of the implementation and maintenance of mitigation measures required by the conditions of this consent and any mitigations voluntarily implemented including new riparian planting;
 - (c) details of the implementation and maintenance of Good Management Practices, including adoption of changing industry good management practices. This includes where the implementation of these is to avoid, remedy or mitigate any farm specific environmental risks to water quality shown through any monitoring undertaken on the property voluntarily or as required by the conditions of this consent;
 - (d) a review of the data obtained from the monitoring undertaken in accordance with the Farm Environmental Management Plan and any changes made, or to be made, as a consequence of that monitoring.

Advice Note:

Should the use of a Freshwater Farm Plan be required or available, on the basis that it is certified under Section 217G of the Resource Management Act 1991 (as amended from time to time in accordance with section 217E(2) or (3)) and available for use, the Consent Holder may elect to use such plan.

32. The FEMP shall be reviewed at least once a year and can be modified at any time by the Consent Holder; and either:
- (a) an updated version shall be provided to the Consent Authority by 30 September each year; **or**
 - (b) the Consent Holder must notify the Consent Authority in writing that no changes have been made by 30 September each year.

Advice Note:

The results from the review of the FEMP will be assessed by the Consent Authority to ensure that the FEMP will still achieve the objectives specified in the FEMP and the FEMP has been prepared in accordance with Appendix N of the Southland Water and Land Plan (Decisions Version) (or any updated version of the plan).

33. The Consent Holder shall operate in accordance with the FEMP at all times. Where there is inconsistency between the FEMP and the conditions of the consent, the conditions of this consent shall prevail.

Auditing

34. The Consent Authority may require the Consent Holder to have the farming activity as authorised by this consent independently audited by a person who is a Certified Nutrient Management Advisor or Farm Environmental Plan Auditor or a Suitably Qualified Person who has demonstrated an equivalent level of expertise.

35. The audit shall assess the performance of the farming activity occurring on the property against:
- (a) the objectives and good management practices specified in the FEMP;
 - (b) any additional mitigation measures implemented on the property either voluntarily or as required by the conditions of this consent; and
 - (c) the baseline contaminant loss rates specified in Condition 13 and 15.
36. The audit must determine the level of confidence of achieving each objective set out in the FEMP. This level of confidence shall be categorised into the following:
- **High** - the objective is probably being achieved
 - **Medium** - the objective is possibly being achieved
 - **Low** - it is unlikely that the objective is being achieved.
37. The audit shall record the justification for each level of confidence assessment, including noting the evidence, or lack of, used to make the determination.
38. Where an objective has received a Medium or Low level of confidence, the audit shall include the actions required for the farm to meet the objective and a timeframe whereby these actions need to be undertaken.
39. Where an objective has received a Medium level of confidence (and the farm has received no Lows), the audit shall also determine whether or not the farm is on-track to achieve the objectives.
40. The audit report shall be provided to the Consent Authority within three months of the date of the Consent Authority issuing a requirement to undertake the audit.
41. The frequency of audit requirements may be annually except where, for two consecutive years, an audit report has concluded that all objectives are probably being achieved (received a high level of confidence). In that situation no further audit will be required for at least three years.
42. Where the audit identifies actions required to be undertaken for the farm to meet the objective the Consent Holder must implement these actions within the timeframes stated in the audit.
43. Upon completion of any changes made and/or mitigations implemented as required by the audit, the Consent Holder shall confirm in writing, including photographs (date and time stamped) to the Consent Authority that these actions have been completed and implemented.
44. Upon completion of all the changes made and/or mitigations implemented as identified in the audit, the Consent Holder must ensure the measures are properly maintained, continue to function and are not removed or altered for the duration of this consent (and any subsequent variation versions).

Lapse and Review

45. The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the consent holder of its intention to review the conditions of this consent during the period 1 February to 30 September each year, or within two months of any enforcement action being taken by the Consent Authority in relation to the exercise of this consent, or on receiving monitoring results, for the purposes of:
- (a) determining whether the conditions of this permit are adequate to deal with any adverse effect on the environment, including cultural effects on the tangata whenua and/or cumulative effects, which may arise from the exercise of the permit, and which it is appropriate to deal with at a later stage, or which become evident after the date of commencement of the permit; or
 - (b) ensuring the conditions of this consent are consistent with any National Environmental Standards Regulations, relevant plans and/or the Environment Southland Regional Policy Statement;
 - (c) amending the auditing/monitoring/recording/reporting/modelling programme to be undertaken;
 - (d) adding or adjusting compliance limits;
 - (e) ensuring the Oreti Freshwater Management Units meets the freshwater objectives and freshwater quality limits set in an operative regional plan or National Policy Statement for Freshwater Management; and
 - (f) requiring the Consent Holder to adopt the best practicable option to remove or reduce any adverse effect on the environment as a result of the exercise of this permit.

for the **Southland Regional Council**

Bianca Sullivan
Independent Hearing Commissioner

Notes:

1. *Reporting to Council is required by conditions of your consent. The key dates for you to meet are listed below in Table 1:*

Table 1: Key Dates


Due date	Condition number	Requirement
30 Sept each year	10	Provide record of soil testing regime, soil testing results and fertiliser recommendations
30 Sept 2024, 2026, 2028 & 2030	12	Provide Olsen P results
30 Sept each year	16	Report summarising results of Overseer modelling
1 June 2023	22	Confirmation of permanently fenced CSA
Annually until completion by 1 June 2025	25	Confirmation of riparian planting
30 Sept each year	29	Provide record of farming practices
30 Sept each year	32	Provide updated version of FEMP if changes were made due to review or confirm no changes were made due to review

2. *In accordance with Section 125(1)(a) of the Resource Management Act, this consent shall lapse after a period of five years after the date of commencement unless it is given effect to or an application is made to extend the lapse period before the consent lapses.*
3. *In accordance with Section 138 of the Resource Management Act, this consent may be surrendered by providing written notice to the Consent Authority. This written notice must be accompanied with evidence to demonstrate that the conversion is complete and that all of the conditions of this permit have been satisfied in full.*
4. *The Consent Holder shall pay an annual administration and monitoring charge to the Consent Authority, collected in accordance with Section 36 of the Resource Management Act, 1991, payable in advance on 1 July each year. This charge may include the costs of inspecting the site up to two times each year (or otherwise as set by the Consent Authority's Annual Plan)*
5. *The FEMP, supporting evidence and on-site practices may be audited by the Consent Authority at any time for compliance and enforcement purposes.*

DRAFT



Appendix 1

 Landholding Boundaries



While every effort has been made to ensure the content is correct, Environment Southland cannot guarantee the accuracy of the data. If the information should not be used in any manner without consultation.

DATA SOURCE: ES GIS 2022

Appendix 2: Location map – riparian planting and CSA fencing

