

To Hearing Commissioners

23 May 2023
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 Commissioners. The report is evidence and has no greater weight than any other evidence that the Hearing Commissioners will hear and consider.

Hearing of Application – APP-20222055
Capil Grove Limited

Compiled by Jade McRae, Senior Consents Officer

Applicant: Capil Grove Limited

Application Number: APP-20222055

Location: 444 Springhills Tussock Creek Road, Springhills

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

Notification: The application was publicly notified on 19 October 2022.

Table 1: Consents Sought

Consent Type	Purpose
1. Discharge Permit	To discharge agricultural effluent to land from milking up to 640 cows and housing up to 840 cows in winter barns
2. Water Permit	To take and use 85,800 L/day of groundwater
3. Land Use Consent	To use land for two winter barns to accommodate up to 840 cows
4. Land Use Consent	To use land for farming in the form of a dairy farm conversion
5. Discharge Permit	To discharge contaminants to land associated with the use of land for dairy farming

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 Commissioners in the hearing of the application for resource consent made by Capil Grove 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 Commissioners 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 The application was lodged and received by Council on 5 April 2022. I have been involved with the application since it was lodged with Council. I have also visited the site on 26 October 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 Tauria (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: Te Ao Marama Inc. submission
- Attachment 4: s99 Pre-hearing Meeting report
- 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: Capil Grove Limited
- Application Number: APP-20222055
- Activities for consent is sought:
- Discharge Application:**
To discharge agricultural effluent to land from milking up to 640 cows and housing up to 840 cows in winter barns via low rate pods and slurry tanker onto 272 ha.
- Water Take Application:**
To take and use 85.8 m³/day of groundwater for stock drinking and dairy shed wash down.
- Land use Application:**
To use land for two winter barns to accommodate up to 840 cows.
- Land use Application:**
To use land for farming in the form of a dairy farm conversion.
- Discharge Application:**
To discharge contaminants to land associated with the use of land for dairy farming.

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 permit and land use consent for a winter barn (AUTH-20211143-02 and AUTH-20211143-04), which both expire on 25 June 2026. It also requires a water permit to take and use groundwater for a dairy operation and a land use consent to use land on a farm as dairy farm land. The winter barns are proposed to accommodate the 640 cows milked at Capil Grove Limited and an additional 200 cows from the applicant’s other dairy farm, Capil Grove Farm.

Stage 0 – Baseline (All farms)	Stage 1 – Current Ponds, 50 ha leased to previous owners	Stage 2 – Conversion to milking. Lease continues.	Stage 3 – Installation of new 17,800 m ³ pond, installation of a second barn. Lease continues.	Stage 4 – After 4 years, lease is finished, and cow numbers increased.
All farms as per their previous farming operations which is described in Section 1.1.	Dairy support system running up to 220 dairy support cows. This is the current effluent storage capacity of the existing ponds. This was outlined and granted consent in June 2021 (AUTH-20211143-01) and is shown in Table 4.3 below.	The 220 dairy support cows that are wintered in the barn will stay on the property and be milked. The current ponds will provide sufficient storage for these cows to be milked as shown in Appendix F.	Up to 505 cows being milked by CGL, with up to 200 cows from Capil Grove Farm in the barns over winter. A peak of 1,171 sheep are being run on the lease block by the previous owners. The 505 cows are determined to be the number of cows that can be managed on the property without causing a detrimental effect on the environment while the sheep are on the property, as determined by nutrient losses modelled in OverseerFM.	No lease and up to 640 cows being milked. With up to 200 cows from Capil Grove Farm housed in the wintering barns over winter.

Figure 1: Taken from the application showing the staged approach for the dairy farm conversion.

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 greyed out.

Table 2: Activity Status of Consents Sought

Activity	Relevant Rule	Activity Status
To discharge dairy shed from up to 640 cows and winter barn effluent from up to 840 cows to land via centre pivot, low rate pods and slurry tanker.	OP: Rule 50: Discharges of dairy farm effluent to land	Non-complying activity
	PP: Rule 35: Discharge of agricultural effluent to land	Discretionary activity
To take and use 85,800 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
To use land for two winter barns which accommodates up to 840 cows.	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 conversion.	NES: Regulation 19(1): Conversion of land on farm to dairy farm land	Discretionary activity
	PP: Rule 20: The use of land for a farming activity	Discretionary activity
To discharge contaminants to land associated with the conversion of land on a farm to dairy farm land	NES: Regulation 19(2): Conversion of land on farm to dairy farm land	Discretionary activity

2.3.4 As the applications are bundled, the overall activity status is a **non-complying activity**.

2.3.5 When considering a **non-complying activity**, the Council may only, in accordance with Section 104D, grant a resource consent for the activity if it is satisfied that the adverse effects of the activity are minor or the application is for an activity that will not be contrary to the objectives and policies of the relevant plan or proposed plan. If the application passes one or both of the “gateway” tests in Section 104D, then under Section 104B the Council may grant or refuse consent for a non-complying 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 3 May 2022.

2.4.2 The applicant agreed to the commissioning of the report on 4 May 2022.

2.4.3 The report was received 20 May 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 19 July 2022. The following information was requested:

- (a) *An explanation/justification as to why the sludge bed is appropriate to be used as an agricultural effluent storage facility within the Dairy Effluent Storage Calculator (DESC). Sludge beds are generally considered effluent treatment facilities, not storage facilities. If the sludge bed is considered appropriate as an effluent storage facility then please provide pond drop test results undertaken by a suitably qualified person, in accordance with Appendix P of the proposed Southland Water and Land Plan. Please also provide details on how the effluent is isolated within one side of the sludge bed when the tanks are full, what alarm systems are in place on the sludge bed to alert the PIC it is full and whether effluent can be irrigated directly from the sludge bed.*
- (b) *A Farm Environmental Management Plan and a written record of the good management practices occurring on the applicants other farm; Capil Road Farm. I am requesting this information because housing 200 cows in the winter barn from Capil Grove Farm results in both properties (Farm 444 and Capil Grove Farm) being part of the overall “ landholding “ as defined in the Glossary section of the Proposed Southland Water and Land Plan.*
- (c) *The Riparian Management Plan mentioned in Section 5.5 of the Farm Management & Conversion Environmental Plan included as Appendix B of the application.*
- (d) *A description of the existing wetland area located at approximately NZTM2000 1251179E 4873341N. The description should include the range and diversity of any indigenous ecosystems and habitats located within this area, any physical works that has been undertaken to preserve, protect or restore this area, when that works was undertaken and any future plans for this area. Photos of this area would also be helpful.*
- (e) *Confirmation that the applicant is applying to discharge agricultural effluent to land via a slurry tanker at 5mm depth on Category C land. The discharge has been assessed as a discretionary activity against RWP Rule 50, however high rate discharge on Category C land is a non-complying activity under Rule 50(f). If high rate discharge via slurry tanker on Category C land is proposed then please provide further assessment on potential effects for this proposed activity.*
- (f) *An assessment of the water take from a spring against Appendix L.2 (pSWLP). I am requesting this information because Table L.2 of the proposed Southland Water and Land plan classifies any groundwater take within 5 metres of a surface water body as having Riparian hydraulic connection and should be managed by considering the water take as an equivalent surface water take, unless there is clear hydrogeological evidence that demonstrates that pumping from the groundwater source will not impact on the surface water body.*
- (g) *If the hydraulic connection is ‘riparian’, or ‘direct’ as defined in Appendix L.2 of the proposed Water and Land Plan, and clear hydrological evidence that demonstrates the pumping will not impact the surface water body is not available, an assessment of:*
 - (i) *the stream depletion effect (in litres per second),*
 - (ii) *the Q95 and median flows of the adjacent surface waterway (not including any effect from the applicant’s water take),*
 - (iii) *cumulative allocation from the stream and wider catchment,*

- (iv) a description of how minimum flows will be observed, or how adverse effects on the values of the waterway will be avoided or mitigated, and*
- (v) if the take will be subject to a minimum flow restriction, a description of how the applicant will continue to operate during the periods that the restrictions apply.*

- (h) Confirmation of the size of the proposed winter barn. I am requesting this information because the main application document and DESC specify 4,590m² (current barn) + 3,650m² (new barn) = 8,240m² combined but the Part B form says 4,590m² (current barn) + 4,380m² (new barn) = 8,970m² combined.*
- (i) Confirmation of how many cows the applicant proposes to accommodate combined in the existing and proposed winter barns. I am requesting this information because the main application document states 956 cows but table 4.3 on page 19 of the winter barn application and the DESC have used 840 in May to October.*
- (j) Confirmation that the winter barn repairs stipulated in Condition 8 of AUTH-20211143-04 have been completed. If so, then please provide evidence of the completed repairs. If not, please provide a plan of when, how and who will undertake the repairs.*
- (k) Confirmation that the land at the southern end of the farm known as Lot 2 DP 13790 is owned by Caleb Harwood. If so, please provide some form of agreement between Caleb Harwood and Capil Grove Limited confirming the landowner is aware of the activities that are proposed to be undertaken on Lot 2 DP 13790. I am requesting this information because Council's GIS system shows this land is not owned by Capil Grove Limited and I cannot find a connection between Caleb Harwood and Capil Grove Limited.*
- (l) An explanation as to the management of the calves produced by the milking herd. Are all calves sold as 4 day olds? Or are the calves raised until weaning and then sold? I am requesting this information because the Overseer Nutrient budgets do not show any calves on the property at any time of the year.*
- (m) Confirmation that all mature age milking cows will get in calf via Artificial Breeding (AB). I am requesting this information because there are no mating bulls present in the Overseer Nutrient budgets at any time of the year.*
- (n) Additional information to address the concerns raised in the attached pond design review report undertaken by RDA. I am requesting this information because the reviewer does not consider that the proposed pond design meets IPENZ Practice Note 21.*

2.4.5 The above information was provided by the applicant (attached) on 6 September 2022.

2.5 Notification and Submissions

2.5.1 The application was publicly notified on 19 October 2022.

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

Table 3: Summary of Submission

Submitter	Oppose/Support	Issues/comments	Decision Sought	Wish to be heard at hearing?
Te Ao Marama Inc.	Oppose	Potential adverse effects on cultural values, rights and interests. Lack of consultation/engagement with mana whenua. Application failed to consider policies in NPS-FM and Te Tangi a Taurira. Effectiveness and quantity of mitigation measures. Concerns regarding Overseer methodology. Effects on surface water, soils, groundwater and the wider environment.	Decline the application	Yes

2.6 Section 99 pre-hearing meeting

2.6.1 A pre-hearing meeting was held on 14 February 2023 at the Kea Meeting Room at the offices of Environment Southland.

2.6.2 The meeting was chaired by Environment Southland Councillor Neville Cook, who holds Making Good Decisions accreditation. His report, as per Section 99(5), is attached.

2.6.3 At the pre-hearing meeting it was established that the following were points of agreement between the applicant, submitter and the Council:

1. Overseer is currently the best model available to use for land use change applications;
2. all stock will be house indoors during winter months;
3. no intensive winter grazing will occur on the landholding;
4. Stage 1 of the dairy conversion will not occur until a new adequately sized effluent storage pond is constructed.

2.6.4 The points of disagreement between Council and the applicant and submitter were:

1. the importance and consequences of inconsistencies within the Overseer modelling;
2. determination of whether the water abstraction is from a surface water source or from groundwater;
3. classification of the slurry tanker as a high rate or low rate effluent discharge method.

2.6.5 The pre-hearing meeting report concluded the applicant should seek advice from a technical expert to define the status of the water abstraction.

2.6.6 The applicant's consultant addressed the water abstraction in a memo received on 14 March 2023 which concluded the proposed abstraction is from a groundwater source.

2.6.7 Council’s Groundwater Quantity Scientist, Phillip McCartney, reviewed the memo and noted *“After looking at this application, if there is only artesian and subsequent surface water visible after rainfall, then it can be classed as ephemeral and therefore not a surface take. Nor can a stream depletion assessment be done as part of a groundwater take, so it would have to be classed as a groundwater take.”*

2.6.8 The source of water abstraction is now no longer a point of disagreement.

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 made up of two blocks - 444 Farm and Tuffin block. 444 Farm is 177 ha in size and has been previously operated as a sheep milking operation (associated discharge permit AUTH-205665 expired 1 January 2019). The Tuffin block is 112 ha in size and has been used to farm dairy support and beef cattle and intensive winter graze on swedes. The applicant recently purchased three neighbouring properties known as the Harwood block (15 ha), Hancox block

(37 ha) and Sharks Tooth block (9 ha). The Harwood block has been historically used as a sheep farm whereas the Hancox block has historically been used for dairy support and beef cattle and intensive winter grazing on kale. Sharks Tooth block (9 ha) was historically farmed as part of Tuffin block. 50 ha of 444 Farm is being leased back to the original owner.



Figure 2: Taken from the application showing the locations of the Capil Grove 444 Farm in relation to the currently leased land, Hancox Block, Harwood Block and Sharks Tooth Hill Block.

3.2.2 The proposed 340 ha farm is located approximately 13 km south east of Winton township. The applicant currently holds discharge permit AUTH-20211143-02 and land use consents AUTH-20211143-01, AUTH-20211143-03 and AUTH-20211143-04. The discharge permit authorises the discharge of winter barn effluent via low rate pods and slurry tanker. The land use consents authorise the use of land for dairy support, to use land for a winter barn, and to construct, maintain and use a new effluent storage facility. The property is located within the Makarewa River catchment which is part of the wider Oreti FMU.

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
	Makarewa	Moderate	Slight	Severe
	Pukemutu	Severe	Slight	Severe
	Kauana	Slight	Very severe	Nil
	Te Mara	Moderate	Moderate	Moderate
Physiographic Zones	Gleyed – no variant (201ha) Gleyed – overland flow (17ha) Bedrock Hill Country – overland flow (42ha) Bedrock Hill Country – artificial drainage (12ha) Peat Wetlands (68ha)			

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 In the Bedrock/Hill Country Physiographic zone, the main risk is to surface water quality from contaminant movement via overland flow, and artificial drainage where relevant. Due to the topography water and contaminants quickly flow downslope during heavy or prolonged rainfall.

3.2.6 Soils in the Peat Wetlands physiographic zone are extremely acidic and prone to water logging. Often there is a seasonal water table that sits close to the ground surface resulting in seasonal ponding and overland flow to nearby streams. Soils and aquifers in this zone are mainly made up of organic material, making them very good at removing nitrogen (via denitrification). Therefore, nitrogen build-up is not an issue for aquifers in this zone. However, a lack of silt and clay and the highly acidic property of peat soils mean that phosphorus is poorly retained and easily leached to water.

3.2.7 *Groundwater quality* - There are no groundwater monitoring bores on the property, however E46/0913 (12 m deep) located directly south of the property showed <0.01 mg/L when it was tested once in January 2013 and E46/0743 (8.8 m deep) which showed 0.05 mg/L when it was tested once in March 2077. The next closest monitoring bores located 2-2.5 km south are E46/0330 (6 m deep), which was tested once in November 1997 and showed a groundwater nitrate level of 2.3 mg/L and E46/0689 (9 m deep) which was tested once in October 2007 and showed a groundwater nitrate level of 1.96 mg/L.

3.2.8 *Surface water quality* - the surface water quality in the downstream receiving environment is highly degraded, in particular the Makarewa River at Wallacetown sits in the worst 25% of all sites for *E.coli*, Total Nitrogen, Total Oxidised Nitrogen, Dissolved Inorganic Nitrogen, Ammoniacal Nitrogen, Nitrate Nitrogen and Total Phosphorus. It also sits in the worst 50% of all sites for Dissolves Reactive Phosphorus¹.

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

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”.

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:

- the new effluent storage ponds will be sufficiently sized (total pond volume = 18,180 m³ and DESC 90th percentile requirement = 16,136 m³) when conditions are not suitable for discharge;
- the new effluent storage ponds will be synthetically lined and have leak detection systems;
- 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.

The applicant proposes to discharge effluent onto FDE Category C land (sloping land >7°) via high rate slurry tanker because the applicant considers their slurry tanker is not a high rate discharge method. Low rate irrigation is defined in the RWP as *“Where farm dairy effluent is applied at a maximum instantaneous application rate less than or equal to 10 mm per hour.”* The applicant provided the following calculation as evidence to prove that their slurry tanker was a low rate method of discharge: *“The [slurry tanker] attachment has an 8 m spread which applies 35,000 L per application. Travelling at a typical rate of 5 km/hour and covering a distance of 1,250 metres results in 1 ha of area covered. Therefore, applying 35,000 L over an area of 10,000 m²/hour equates to an application rate of 3.5 L/m²/hour (3.5 mm/hour).”* However, a distance of 1,250 m would be reached within 15 minutes at 5 km/hour, therefore the above calculation actually equates to a discharge rate of 3.5 mm/15 minutes or 14 mm/hour and as a result I consider the slurry tanker is a high rate irrigation method. In a report prepared for Environment Southland in 2009 Houlbrooke and Monaghan² noted some intensive dairy farm operations in the Southland are located on sloping land (>7°) with low surface infiltration (< 100 mm/hr) which poses a high risk of surface ponding and subsequently overland flow of dairy effluent when discharged via high rate irrigators.

² Houlbrooke DJ and Monaghan RM, (2009). The influence of soil drainage characteristics on contaminant leakage risk associated with the application of farm dairy effluent. Environment Southland.

Land Use – Expanded dairy farm

The applicant has provided nutrient budgets of the current scenario and multiple stages of the proposal as required by Part B section 4 of Appendix N in the proposed Southland Water and Land plan. These budgets have been created by Victoria Jones, 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 concluded the proposed budgets had a medium level of robustness and requested further explanations and adjustments to the budgets. Ms Jones made some adjustments to the budgets, which did not satisfy Ms Watt’s concerns and as a result Ms Jones confirmed on 8 July 2022 “we don’t intend to refine the model any further”. Thus, Ms Watt cannot confirm that the Overseer Best Practice Data Input Standards have been followed.

Table 5 below shows the predicted nutrient losses from the current farm system (non-dairy farm land use), stage 3 of the conversion and stage 4 of the conversion modelled by the applicant in OverseerFM version 6.4.3. A version change within Overseer to 6.5.1 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

	Current land use	Stage 3- Proposed dairy platform (505 cows)	Stage 4 – Proposed dairy platform (640 cows)	Overall difference (%)
N Loss to water (kg/ha/yr)	34 32	29 27	28 27	-15.6%
N Loss to water (kg/yr)	11,404 10,784	9,887 9,195	9,515 9,091	-15.7%
P Loss to water (kg/ha/yr)	1.9	1.9	1.9	0%
P Loss to water (kg/yr)	630	647	656	+4.1%

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, it has been identified that the loss of P via overland flow is a prominent contaminant pathway for this particular property.

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	Small areas of existing shelter belts but no new planting proposed	Good management practice
Milk cull cows and reduce the need for replacement heifers	All calves are sold at 4 days old	Mitigation Measure
Provide sufficient effluent storage to enable deferred application	Yes once storage is constructed (APP-20222554)	Good management practice
Defer effluent application when soil conditions are unsuitable	From first exercise of new consent	Good management practice
Use of winter barns to take cows off pasture during adverse weather	Currently occurs	Mitigation Measure
Apply effluent at low rates	Low rate pods proposed	Good management practice
Avoiding intensive winter grazing	45 ha of barley proposed for spring	Mitigation Measure
Synthetic fertiliser use capped at 190kg/ha/yr	From first exercise of new consent	Good management practice
Avoid applying fertiliser to excessively dry or saturated	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 budgets, 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:

- milking cull cows to avoid the need for dairy support heifers;
- utilising winter barns; and
- avoiding intensive winter grazing.

Nitrogen

The budgets show that the N losses on the landholding are expected to decrease by 2,152 kg/year or -17.6% when the current land use of all blocks is compared to the proposed dairy farm milking 640 cows. Due to the nature of the landholding’s soils the risk of nitrogen leaching through the soil to groundwater is low. However, there is a risk of nitrogen being transported to surface water via overland flow and artificial drainage as it can build up during summer in the soil and become mobilised in late autumn and winter when soil moisture levels rise.

The main reasons for the reduction in predicted nitrogen loss between the current and proposed scenarios are the removal of intensive winter grazing and the inclusion of winter barns. 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)³. Fallow soil can run off into surface waterbodies carrying with it phosphorus and microbial contaminants. The current land use budget includes 35 ha of swedes and 16 ha of kale with no wintering structure, compared to the stage 3 budget which has modelled 8 ha of kale and a wintering structure for 705 cows, whereas the stage 4 budget has modelled no winter crop and a wintering structure for 840 cows. The table below shows the wintering system comparisons of all stages of the conversion that have been modelled in OverseerFM.

Table 7: Wintering system for different stages of the dairy farm conversion

	Current land use	Stage 3- Proposed dairy platform	Stage 4 – Proposed dairy platform
Fodder beet	35 ha	0 ha	0 ha
Kale	16 ha	8 ha	0 ha
Cows in winter barn	N/A	705	840

It is also worth noting that the applicant has modelled its synthetic nitrogen fertiliser use for stage 3 of the conversion at 103.5 kg/ha and 87.3 kg/ha for stage 4 of the conversion, which is significantly lower than the 190 kg/ha/year cap set by Regulation 33 of the National Environmental Standards for Freshwater 2020. I consider it appropriate to include a maximum synthetic nitrogen fertiliser consent condition that is similar to the use modelled in OverseerFM, as opposed to the cap set by Regulation 33.

Phosphorus

The budgets show that the P losses on the landholding are expected to increase by 26 kg/year or +4.1% when the current land use of all blocks is compared to the proposed dairy farm milking 640 cows. The increase in P loss may be a result of the Overseer assumption that 30% of the P on laneways is lost to water, which means all new dairy lanes would automatically result in an increase of P losses. A study done by Lucci, McDowell and Condrón (2012)⁴ showed soil measured in a laneway was enriched in Olsen P (56 mg P/kg) compared to pasture (24 mg P/kg), as well as having a greater bulk density resulting from more frequent use by stock. They also concluded that the laneway contributed to 89% of the Dissolved Reactive Phosphorus load when

³ 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.

⁴ Lucci, G. M., McDowell, R. W. and Condrón, L. M. (2012) Phosphorus source areas in a dairy catchment in Otago, New Zealand. *Soil Research*, Vol 50, issue 2, pages 145-156.

surface overland flow was likely, which represents a substantial source of P loss on dairy farms. However, the application does not detail where the new lanes will be located or their proximity to the surface waterways present on-farm so I cannot be certain if this assumption within Overseer is overestimating P loss from “other sources”. This would be a helpful matter to clarify at the hearing for the Commissioners’ information.

The application states “*The barley [crop] will utilise extra phosphorus reserves from the soil that could otherwise runoff from the system in early autumn.*” The rooting depth of barley is significantly deeper than pasture so it can capture and attenuate nutrients that are lower in the root zone and any crop which needs P will absorb extra P if it is available. However, barley is not a high use P crop when compared to brassica fodder crops and so I cannot be certain if the crop will in fact absorb excess P.

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 a daily abstraction volume of 85.8 m³/day and a yearly volume of 21,834 m³/year. The daily abstraction volume equates to 120 L/cow/day (640 milking cows) plus 45 L/cow/day for the 200 extra cows housed in the winter barns during winter. The yearly abstraction volume equates to less than 94 L/cow/day x 365 days. This is considered industry standard of efficient use for shed and stock drinking water use. The groundwater zone from which the water would be taken (Makarewa in both the RWP and pSWLP) is not over-allocated and the proposed abstraction will not result in over-allocation. The closest waterway to the abstraction point is a small tributary of the Makarewa River located 500 m south west, however it is likely that this drain is solely influenced by rainfall and therefore considered ephemeral. The next closest waterway is located over 1,100 m east and with the proposed maximum rate of abstraction of <2L per second, no hydraulic connection is expected. Therefore, I consider the adverse effects on water quantity to be less than minor.

3.3.2.3 Soil Health

The liquid effluent disposal field is proposed to increase the currently consented 148.5 ha to 280.8 ha to include all new blocks of land recently purchased except Sharks Tooth 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 Booklet⁵. 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 approximately 800 m from the current effluent storage ponds and 500 m from the current and proposed wintering barns. Additionally, all facilities are more than 200 m from the property boundary. A recommended condition of consent requires that the stored or discharged agricultural effluent shall not cause any odour beyond the boundary of the site that is offensive or objectionable. Therefore, I consider the adverse effects that may arise from odour to be less than minor.

3.3.2.5 Ōreti River

Tributaries of the Makarewa River run through parts of the applicant's property and eventually join the Ōreti River at the confluence south of Wallacetown. The Ōreti River is subject to the Water Conservation (Ōreti River) Order 2008, which is a statutory instrument that 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 Ōreti 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 Ōreti 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 has not proposed adequate mitigations to prevent overland flow to the Makarewa River.

3.3.3 Effects Conclusion

3.3.3.1 The applicant has demonstrated that there will be sufficient storage available in the newly constructed ponds when the land is not suitable to discharge effluent to. The new ponds will be synthetically lined with leak detection systems. The effluent discharge area is proposed to increase to include all new blocks of land recently purchased except Sharks Tooth block, which will accommodate the extra effluent generated from milking cows and the additional winter barn. Effluent can be discharged at low rates and depths, which is consistent with the key policies in avoiding and mitigating effects on water quality. However, I consider the effects on water quality that may arise from the discharge of effluent via a high rate slurry tanker on high risk Category C land likely to be at least minor. The water abstraction volume is considered efficient and reasonable for its end use, which is consistent with key water quantity policies. The winter barns allow the applicant to stand cows off pasture during adverse weather and the effluent generated in the barns will be collected in the effluent system, which ensures it can be managed and will not flow beyond the perimeter of the barns.

⁵ Farm Dairy Effluent, Best Practice Guidelines (2007), Environment Southland

3.3.3.2 The increase in Revised Stock Units (RSUs) between the current land use and the proposed dairy farm operation will in my opinion result in localised losses increasing as a result of the intensification of land. There will be an increase in losses from all blocks to the Makarewa River, which will, especially considered cumulatively, result in addition nutrients and contaminants entering the localised receiving environment. Increased losses result in increased contaminant loadings in waterways, which can cause a number of issues, including nuisance algal growth, over sedimentation and eutrophication. In my opinion, the removal of intensive winter grazing, utilising winter barns and milking cull cows, as opposed to raising replacement heifers, will not avoid, remedy or mitigate all potential or actual adverse effects that arise from the conversion of land to dairy farm land.

3.3.3.4 Lastly, I consider there may be potential for adverse of cultural effects which are more than minor. While I acknowledge I am not a suitably qualified person with regard to cultural impact assessments, I do note the submission of Waihōpai Rūnaka opposing the application and their desire to be heard at the hearing.

3.3.4 Monitoring (future)

3.3.4.1 Groundwater monitoring does not currently occur on the property. Mr Ewen Rodway (Council’s Groundwater Quality Scientist) was asked to assess whether Groundwater quality monitoring was appropriate in this scenario. Mr Rodway confirmed groundwater monitoring was not recommended and noted *“Based on the physiographic setting and existing groundwater quality records I would not recommend groundwater monitoring as the most effective way of monitoring the environmental effects of the proposed activity. This position reflects the predominance of poorly drained soils, high to moderately high soil zone denitrification potentials, and limited deep drainage pathways on the property.”*

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; and
- the applicant is proposing to winter the entire herd plus 200 cows from its other dairy farm in two winter barns.

3.3.5 Consideration of Alternatives

3.3.5.1 The application included an assessment of alternatives for the water abstraction and discharge activities. The alternatives included transporting effluent off-site, discharging to surface water, surface water abstraction and deeper groundwater abstraction.

3.3.5.2 The applicant considered transporting effluent off-site would be expensive and *“Effluent could be discharged to surface water. This is not considered as preference in Regional Land and water Plan objectives is for discharges to land”*. The applicant considered surface water abstraction but noted *“The Makarewa River from which surface water could be abstracted is approximately 1.3km away from the farm and does not represent a viable alternative.”* Abstraction from deeper groundwater was also considered *“however, because this spring*

already exists and is in use, there is no reason why this spring should be decommissioned, in favour of an alternative groundwater supply”. The consideration of alternatives is addressed further in this report in the section on Section 105 of the RMA.

3.3.5.3 The applicant has not considered any alternatives to the incidental discharge associated with the conversion of land to dairy farm land required by regulation 19(2).

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 NPS-FM 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 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 Maitai 1, Maitai 2 and Maitai 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 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.*
- Policy 13A* *(a) Recognise that the establishment of new dairy farms poses risks to water quality, including the quality of water in coastal lakes, lagoons, tidal estuaries, salt marshes and coastal wetlands, that needs to be addressed when establishing a new dairy farm.*
- (b) Manage the risk posed by the establishment of new dairy farms by requiring resource consent and requiring the documentation of risks and measures to avoid or mitigate them in a Conversion Environmental Plan.*
 - (c) Consideration should be given to, but not be limited to, the following matters;*
 - i. the assimilative capacity and drainage characteristics of the soil and consequential effects on water quality;*
 - ii. the risks posed by the establishment of a new dairy farm to the water quality of water bodies, coastal lakes, lagoons, tidal estuaries, salt marshes and coastal wetlands;*
 - iii. the extent to which those risks can be avoided or mitigated through measures proposed in the Conversion Environmental Plan;*
 - iv. the likely effectiveness of the measures contained in the Conversion Environmental Plan;*
 - v. how, and within what timeframe, those measures will be implemented.*
 - (d) Where the risks to the water quality of water bodies, coastal lakes, lagoons, tidal estuaries, salt marshes and coastal wetlands cannot be avoided or mitigated, the Council may decline consent for the establishment of a new dairy farm.*

Water Quantity

- 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 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.*

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.*

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 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.*

Comment

The water quality in the Makarewa River is degraded⁶ and the applicant's nutrient budgets predict an increase in Phosphorus when the proposed conversion is compared to the current farming system. The applicant's proposed mitigation measures will not in my opinion fully avoid or mitigate the adverse effects on water quality from the establishment of a new dairy farm. It should also be noted the timeframe proposed to implement sediment traps being the first within 12 months of granting consent and a second within 24 months. Therefore, I consider the part of the proposal that seeks to convert land to dairy farm land is inconsistent with Objectives 2, 3 and 4 and Policy 13A.

The proposed water abstraction will not exceed 2 L/s so is not subject to stream depletion considerations under the RWP. The applicant is proposing to take 0.05% (RWP) and 0.04% (pSWLP) of the available groundwater allocation for the operation annually, which will not result in full allocation or over-allocation of the groundwater zone. The volume of water the applicant

⁶ According to the LAWA website the Makarewa River at Wallacetown sits in the worst 25% of all sites for all water quality indicators except Dissolved Reactive Phosphorus where it sits in the worst 50% of all sites.

is seeking is deemed an efficient use of water at 120 L/cow/day (640 milking cows) plus 45 L/cow/day for the extra 200 cows housed in the winter barns during winter. The water permit will include a condition relating to the installation of a water meter and a review condition.

The proposed discharge is to land rather than water, and the provision of low rate discharge, buffers to surface waterbodies and sufficient effluent storage is expected to appropriately mitigate potential adverse effects on water quality, with the exception of the potential adverse effects on surface water quality that may arise from high rate discharge on sloping land over 7 degrees. The level of risk is taken into consideration, including in relation to recommending compliance monitoring and consent duration.

The proposed effluent storage ponds are being processed as a separate application (APP-20222554), however at the time of writing this report the Engineer's designs indicated the ponds will be appropriately located, designed and constructed with leak detection systems and synthetic liners and with appropriate capacity to cater for the effluent generated by the proposal. If granted, the discharge permit would include conditions relating to ongoing maintenance and operation of the pond, such as pond drop tests when appropriate and ensuring there is always 0.5 m freeboard available.

The term of consent is considered in Section 4.2 below.

3.4.5 Proposed Southland Water and Land Plan (2018)

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 Runanga 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 Taura, and the views of Te Rūnanga o Ngāi Tahu and Waihōpai Rūnaka have been taken into account in assessing the application. Te Ao Marama Inc, on behalf of Waihōpai Rūnaka, has been involved in the application process since it was publicly notified and has had subsequent discussions with the applicant to address the concerns raised in Waihōpai Rūnaka's submission. Te Ao Marama Inc was also involved in the consultation phase and development of the pSWLP objectives and policies. It is noted in this context that Te Ao Marama Inc, on behalf of Waihōpai Rūnaka, submitted and wishes to be heard in relation to this application.

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.*

Policy 10 In the Peat Wetlands physiographic zone 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, deep drainage, and lateral drainage;*
- 2. having particular regard to adverse effects on water quality from contaminants transported via artificial drainage, deep drainage, and lateral drainage when assessing resource consent applications and preparing or considering Farm Environmental Management Plans; and*
- 3. decision makers generally not granting resource consents for additional dairy farming of cows or additional intensive winter grazing where contaminant losses will increase as a result of the proposed activity.*

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 dairy farm intensification.

The mitigations proposed by the applicant target the overland flow and lateral drainage contaminant pathways, such as removing intensive winter grazing and utilising winter barns. However, these mitigations only target contaminant losses during the winter months of the year

and the proposed timeframe of implementation of sediment traps means the benefits to water quality that will arise from the sediment traps will be delayed while the land use change activity will have commenced. Therefore, in my opinion, the proposal is inconsistent with the physiographic policies above, and in particular Policy 10(3) due to the predicted increase in phosphorus loss modelled in OverseerFM.

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.*
- 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 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.*
- 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;**
- [...]*
- 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 and the applicant has a current Farm Environmental Management Plan consistent with Appendix N. However, the water quality in the Makarewa River is highly degraded to the point of being considered “over-allocated” and the applicant’s nutrient budgets predict an increase in Phosphorus loss when the proposed conversion is compared to the current farming system. The applicant’s proposed mitigations do not, in my opinion, fully avoid or mitigate the adverse effects on water quality from the establishment of a new dairy farm. As a result of the above, I consider the proposal is inconsistent with Objectives 6 and 13 and Policies 13, 15B and 16.

The discharge is to land, which is consistent with Policy 14. The proposed effluent storage ponds are being processed as a separate application (APP-20222554) however at the time of writing this report the Engineer’s designs indicated the ponds will be appropriately located, designed and constructed with leak detection systems and synthetic liners and with appropriate capacity for effluent generated by the proposal.

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.*
- 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 (640 milking cows) plus 45 L/cow/day for the extra 200 cows housed in the winter brans during winter. If granted the water permit would 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 Waihōpai – 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. The landholding is located in the Oreti FMU which has not had limits set yet.

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. [...]*
- 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 inconsistent with a number of those 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 dairy farm conversion is inconsistent 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 NPS-FM 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.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 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.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.

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 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 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.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

Tangata whenua were first involved in the application post public notification and have had subsequent communication with the applicant since it was notified and subsequently submitted. Te Tangi a Taurira is considered in Section 3.9 below.

The proposed land use activity is likely to result in a reduction in water quality and the mitigations offered in the application, such as avoiding intensive winter grazing, utilising winter barns, installing two sediment traps over 24 months and milking cull cows, as opposed to raising replacement heifers, are not adequate enough to avoid, remedy or mitigate the adverse effects. The applicant’s nutrient budgets predict an increase in Phosphorus when the proposed conversion is compared to the current farming system which I consider is inconsistent with a number of the water quality policies above.

The discharge is to land, not water, and low rate irrigation and sufficiently sized effluent storage 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 (640 milking cows) plus 45 L/cow/day for the extra 200 cows housed in the winter brans during winter, which is considered efficient use for stock drinking and dairy shed wash down purposes. Therefore, I consider the water abstraction activity is consistent with the Water quantities policies above.

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 effect on 3 September 2020, as part of the central government’s Essential Freshwater package. The Essential Freshwater package recognises the move towards a holistic, ki uta ki tai approach to the management of the natural environment and provides an opportunity for the Crown to demonstrate partnership relationship with Tangata Whenua and exercise responsibilities under Te Tiriti o Waitangi.

3.6.1.2 The NPS-FM 2020 post-dates all of the Council’s regional plans and regional policy statement, and therefore, as a later-in-time piece of national direction, it carries considerable weight in consent decision-making.

3.6.1.3 I consider the NPS-FM 2020 objective and policies (Part 2), which give effect to the fundamental concept of Te Mana o te Wai (Clause 1.3), and the associated hierarchy of obligations are relevant to the proposal.

3.6.1.4 The objective of the NPS-FM 2020 (‘the Objective’) is:

- [...] to ensure that natural and physical resources are managed in a way that prioritises:
- (a) first, the health and wellbeing 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 wellbeing, now and in the_”

3.6.1.5 The Objective is reflective of the hierarchy of obligations in Te Mana o te Wai, which underpins the national direction of how freshwater is to be managed under the NPS-FM 2020. While the “local approach to Te Mana o te Wai” is yet to be developed, I understand that Te Mana o te Wai is about the long-term sustainability of freshwater resources, where the health and wellbeing of a waterbody entails more than bio-physical health, it also considers other matters such as the mauri^[1] of the waterbody and the health and wellbeing of the wider environment, people and the community. The NPS-FM 2020 inextricably links the traditional western science bio-physical aspects of waterbody health with the fundamental concept of Te Mana o te Wai.

3.6.1.6 Overall, the principles of Te Mana o te Wai underpin what long-term sustainable management of freshwater and the fundamental wellbeing of the waterbody mean as a holistic whole. Therefore, I consider that Te Mana o Te Wai is fundamental to water quality, and all of its principles of are relevant to the proposal. These principles are:

- (a) *Mana whakahaere: the power, authority, and obligations of tangata whenua to make decisions that maintain, protect, and sustain the health and wellbeing 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 wellbeing 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.*

^[1] **mauri** may be defined as life principle, life force, vital essence, special nature, a material symbol of a life principle, source of emotions - the essential quality and vitality of a being or entity. Also used for a physical object, individual, ecosystem or social group in which this essence is located (Source: <https://maoridictionary.co.nz/>).

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

- (a) first, the health and wellbeing 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 wellbeing, now and in the future.

3.6.1.8 Policies 1 to 15 seek to give effect to the Objective. In line with the above principles of Te Mana o te Wai, I have considered the relevant policies below:

- 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 4* *Freshwater is managed as part of New Zealand’s integrated response to climate change.*
- Policy 8* *The significant values of outstanding water bodies are protected.*
- Policy 9* *The habitats of indigenous freshwater species are protected.*
- 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 wellbeing in a way that is consistent with the NPS-FM.*

Comment

I consider that the proposed activities are inconsistent with the policies in the National Policy Statement for Freshwater Management. I consider that the mitigations proposed, such as intensive winter grazing, utilising winter barns, installing two sediment traps over 24 months and milking cull cows, as opposed to raising replacement heifers, are not adequate enough to avoid and mitigate all potential adverse effects on water quality which is inconsistent with Policies 1, 3, 8, 9 and 12.

With regard to Policy 4, greenhouse gases are predicted to increase by 3,284.8 tonnes/year when the current farm system is compared to the proposed dairy farm system in OverseerFM.

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 (640 milking cows) plus 45 L/cow/day for the extra 200 cows housed in the winter barns during winter, which is consistent with Policy 11. However, water quality in the Makarewa River is degraded to the point of being considered over-allocated and the applicant's nutrient budgets predict an increase in Phosphorus when the proposed conversion is compared to the current farming system, which is inconsistent with Policy 11.

Waihōpai Rūnaka has submitted on the application and consideration of Te Tangi a Taurira and the involvement of Waihōpai Rūnaka is not considered inconsistent with Policy 2, but I do note the concerns of Waihōpai Rūnaka and its desire to be heard at the hearing.

In terms of monitoring freshwater quality, if consent was granted a recommended condition of consent would include periodic monitoring of surface water entering and exiting the farm. A threshold trigger relating to degrading trends would also be recommended in order to be consistent with Policy 13.

In terms of the ability of people and communities to provide for their social and economic wellbeing, now and in the future, I consider that the proposal is likely to give rise to economic benefits as it provide a source of employment and will inject money into rural suppliers. I consider the matter of cultural wellbeing is a matter for hearing.

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

3.7.1 National Environmental Standard for Freshwater 2020 (NES-F 2020)

3.7.1.1 The National Environmental Standards for Freshwater 2020 (NES-F 2020) also came into effect on 3 September 2020 as part of the Governments Essential Freshwater package, which seeks to stop further degradation of New Zealand's freshwater resources, making immediate improvements and reversing past damages.

3.7.1.2 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.

...

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."*

3.7.1.3 As none of the landholding was used as dairy farm land at the close of 2 September 2020, 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 and states “a resource consent for an activity that is a discretionary activity under this subpart must not be granted unless the consent authority is satisfied that granting the consent will not result in an increase in either of the following:

- a. contaminant loads in the catchment, compared with the loads as at the close of 2 September 2020;
- b. concentrations of contaminants in freshwater or other receiving environments (including the coastal marine area and geothermal water), compared with the concentrations as at the close of 2 September 2020.”

3.7.1.4 I am not satisfied that granting this current proposal will not result in an increase in contaminant loads or concentrations because:

- (a) the nutrient budgets modelled in OverseerFM predict that phosphorus loads in the catchment will increase; and
- (b) the applicant has not provided adequate mitigations over and above those that existed on 2 September 2020 to minimise contaminants losses to freshwater.

3.7.1.5 Regulation 24 also stipulates the consent must expire before 1 January 2031.

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

3.7.2.1 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.

3.7.2.2 The activity is not upstream of a registered drinking-water supply that provides water to more than 501 people and therefore the regulations do not apply. However, Myross Bush School supplies drinking water for between 25 and 501 people from a bore but is located over 17 km downstream from the proposal site.

3.7.2.3 Any potential effects on the water supply are likely to be negligible. The discharge is not directly to water and maintenance of buffer zones would 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.

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

3.7.3.1 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.

3.7.3.2 As the proposed take it 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.

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

3.8.1 Te Tangi a Taurira

3.8.1.1 Te Tangi a Taurira 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 Taurira, 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 management 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.*

Policy 16 *Requires monitoring as condition of consent on any discharge to land. This should include monitoring water quality (e.g. representative water samples upstream and downstream), and soil nitrogen loads.*

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 8 Promotes the restoration of wetlands and riparian areas as part of maintaining and improving water quality, due to the natural pollution abatement functions of such ecosystems.

Policy 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

Issues raised by Waihōpai Rūnaka in its submission include the lack of consultation with mana whenua, effects on water quality and quantity in their takiwā and the effectiveness and quantity of mitigations. The applicant has had subsequent discussions with tangata whenua to address the concerns raised and requested draft consent conditions to help find a path forward.

As mentioned above, I am not a suitably qualified person with regard to cultural impact assessments, and this will be a matter to be addressed at the hearing. However, I have sought to assess the proposal against the direction in Te Tangi a Taurira as far as possible. One of the effluent discharge methods is to land via low rate pods with other methods proposed as contingency measures, which is consistent with Farm Effluent Management Policies 4, 7 and 8 and water quality Polices 5 and 6. The one exception to this is the risk to soils and water quality from the proposed high rate discharge onto sloping land over 7 degrees. If consent is granted, conditions relating to buffer distances, riparian planting, sediment traps, freshwater monitoring, spray drift and ponding of effluent would be included in the conditions of consent which is consistent with the Farm Effluent Management Policies 11, 13, 14, 15, 16 and water quality Policy 9. Regarding Policy 8, at the time of writing this report the applicant had agreed to implement a Riparian Planting Plan, but had not supplied any specific details regarding location or timeframe of planting. In terms of Farm Effluent Management Policy 9, the application notes “As this is a recently purchased property, the exact location of the tile drainage system is unknown and is therefore assumed to be [present] in all paddocks except in the steeper Tuffin Block and Shark’s Tooth Hill area”. However, the application went on to say “Where the operator suspects there may be a risk of effluent entering a tile drain a visual inspection will be made of the tile exit point and immediate action taken to block the tile if any

effluent discharge is occurring.” Therefore, the proposed discharge activity is broadly consistent with this policy.

The water take is from groundwater, conditions relating to water meters and review of abstraction volume would be 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 Waihōpai Rūnaka was considered an affected party. As a result, it has provided a submission, 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 conversions and land intensification. This is presumably because Te Tangi a Taurira became operative in 2008 during the dairy boom in Southland.

3.9 Section 105 matters relevant to discharge or coastal permits

3.9.1 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.

3.9.2 The sensitivity of the receiving environment has been considered, being in particular the key risks to surface water quality through overland flow of contaminants. Low rate discharge is considered to be appropriate for the receiving environment, however high rate discharge on sloping land over 7 degrees is not considered appropriate due to the risk of over land low to surface waterways. The proposal does include discharge buffers to surface waterways and bores.

3.9.3 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 (transporting effluent offsite and discharge to water). I agree with the applicant that the latter alternative would likely result in greater adverse effects.

3.10 Section 107 restriction on grant of certain discharge permits

3.10.1 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.

3.10.2 With regard to s.107, the application noted *“Given that the FDE is applied to land, and not to surface water, the effects that have the potential to occur is in groundwater. Given the mitigation proposed, particularly low application rates, buffer distances to waterways, management of application during time of rainfall and the use of the wintering barns, it is unlikely that the FDE will enter any waterways and result in any effects referred to in section 107.”*

3.10.3 If carefully managed, such as avoiding high rate discharge on sloping land over 7 degrees, the proposed effluent discharge is not expected to give rise to the effects on surface water listed in Section 107.

3.11 Part 2 of the Resource Management Act 1991

3.11.1 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.

3.11.2 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.

3.11.3 In relation to the matters outlined in Section 5, I consider that the part of the application that seeks to abstract groundwater, discharge effluent to land and use winter barns is largely consistent with the purpose and the principles of the Act. This is the promotion of the sustainable management of natural and physical resources. I consider the dairy farm conversion activity and associated incidental discharge to land will be likely to have significant adverse effects on freshwater quality, and consequently the ability of the receiving environment to meet the reasonably foreseeable needs of future generations, and on the life-supporting capacity of the land and any ecosystem associated with it.

3.11.4 All of the Part 6 matters have been covered within the various Council planning instruments, of which the application is generally consistent with those relevant provisions. 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 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 Makarewa River catchment which is part of the broader Oreti catchment but is not within a Statutory Acknowledgment Area and is not part of any customary rights.

3.11.5 In relation to the considerations under Section 7, I also consider that the likely adverse effects on water quality does not give regard to (f) the maintenance and enhancement of the quality of the environment. The receiving environment subject to this application is currently degraded and the proposed activities are not likely to maintain or improve the water quality. I also consider the proposal does not give regard to (i) the effects of climate change as greenhouse gases are predicted to increase by 123% when the current farm system is compared to the proposed dairy farm system in OverseerFM. It should also be noted Waihōpai Rūnaka has raised concerns in its submission regarding effects on cultural values, rights and interests, which are matters to be addressed at the hearing.

3.11.6 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 noted in Sections 3.4 to 3.9 of this report. However, it should be noted the Waihōpai Rūnaka submission opposes the applications due to the applicant's failure to consider the policies within Te Tangi a Tauria. This is a matter to be addressed at the hearing

4. Recommendations

4.1 Whether to grant

4.1.1 The application is considered to be a **non-complying activity** and as such may be declined or granted. When considering a non-complying activity, the Council may only, in accordance with Section 104D, grant a resource consent for the activity if it is satisfied that the adverse effects of the activity are minor or the application is for an activity that will not be contrary to the objectives and policies of the relevant plan or proposed plan.

4.1.2 I consider that the application should be **declined** for the following reasons:

- the application is inconsistent with a number of objectives and policies of the relevant National Policy Statement for Freshwater, Regional Policy Statement, Iwi Management Plan and Regional Plans;
- potential and actual adverse effects on the environment from the proposed activity are likely to be more than minor, especially with regard to surface water quality;
- the mitigations the applicant has offered are not adequate to avoid, remedy or mitigate any actual adverse effects that do arise from the proposed activity; and
- the proposed dairy farm conversion activity does not satisfy the 'contaminant threshold' tests of the National Environmental Standards for Freshwater which restricts Council's ability to grant consent.

4.1.3 Overall, I recommend, that for the above reasons, the application be **declined** pursuant to Sections 104B and 108 of the Resource Management Act 1991.

4.1.4 Although I have recommended that the application be declined, I have appended draft conditions to assist the commissioners if they choose to grant the application.

4.2 Term of consent

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

- the investment in effluent storage facilities;
- low risk of environmental risk;
- consistency with the Iwi Management Plan; and
- good management practices will be carried out including monitoring.

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 is inappropriate for all activities subject to this proposal. I consider there is uncertainty around the nature and extent of potential effects on freshwater quality in the long-term, particularly with regard to the predicted increase in phosphorus and the assumed increase in microbes (e.g. *E.coli*) and sediment losses to freshwater.

4.2.5 I have taken into consideration the imminent implementation of FMU limit setting and that if the FMU limit setting requires significant reductions in contaminants losses in the Oreti FMU, a review would be necessary to implement those reductions. I have also considered the applicant's significant investment in purchasing the landholding as well as the generally good compliance history over the last five years for the applicants other dairy farm activities authorised by Council.

4.2.6 Consequently, I recommend that the application is granted for a term of seven years and all permits are given the common expiry date of 31 December 2030, in order to be compliant with regulation 24(2) of the NES-F.



Jade McRae
Senior Consents Officer

Approved for Release:



Bruce Halligan
Consents Manager

Attached: Discharge permit AUTH-20222055-01, Water permit AUTH-20222055-02, Land Use Consent AUTH-20222055-03, Land Use Consent AUTH 20222055-04 and Discharge permit AUTH-20222055-05.

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



Consents Hearing 23 May 2023

Capil Grove Limited – APP-20222055

Appendices

Attachment 1

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



Irricon
resource solutions

OVERSEER Nutrient Budget Review

For: Environment Southland – Capil Grove Ltd

Prepared by: Nicky Watt, CNMA

Date: 20th May 2022

www.irricon.co.nz

Introduction

1. Regarding the consent application for Capil Grove Ltd, I have reviewed the following OVERSEER[®] Nutrient Budget (OVERSEER) files:
 - a) Stage 0 – Baseline -All farms (v1) (Environment Southland)
 - b) Stage 3 – Proposed Dairy Milking w/lease (v1) (Environment Southland)
 - c) Stage 4 -Proposed Dairy Milking w/o lease (v1) (Environment Southland)
2. Along with the file I have reviewed the following accompany reports: Overseer modelling reports from OverseerFM. No accompanying Modelling Report prepared. Overseer modelling prepared by Miranda Hunter. I have completed a robustness check on the files for sensibility based on data available and checked to ensure the modelling aligns with the OVERSEER Best Practice Data Input Standards for v6.4.3.
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 Capil Grove 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. There is no mean calving or dry off date for the Prop w and Prop wo models. The drawn area for the Base model differ to that of the Prop w and Prop wo models. Barley has not been harvested in March in the Prop wo model. The soil area and type varies between all models.
3. The Base model and both Prop w and Prop wo models had a total area of 340.1 ha with 313.4 ha effective. The Base model had a revised stocking rate of 25.1 RSU/ha for all animal and the

Prop w model and Prop wo model had a respective revised stocking rate of 28.1 RSU/ha and 30.3 RSU/ha or a respective 10.7% and 17.2% increase in RSU/ha (see Table 1 below).

4. Reviewing the NZ Dairy statistics for the 2020/2021 season, shows the average milk solids production on this property for the Prop W model at 550 kgMS/cow and 1067 kgMS/ha is respectively higher than the Southland Regional average of 424 kg MS/cow and lower than the Southland Regional average of 1,208 kgMS/ha. The Prop wo model at 550 kgMS/cow and 1311 kgMS/ha is respectively higher than the Southland Regional average of 424 kg MS/cow and higher than the Southland Regional average of 1,208 kgMS/ha.
5. The dairy cow stocking rate for Prop w and Prop wo model at 1.9 and 2.4 cows/ha are respectively lower than the Southland average for the 2020/2021 season of 2.79 cows/ha (Southland).

Table 1: Summary of Production and stocking rate

	Base ¹	Prop w ²	Prop wo ³
Total Ha	340.1	340.1	340.1
Effective Area (ha)	313.4	313.4	313.4
Effective Pasture Area (ha)	262.4	260.4	268.4
KgMS	-	277750	352000
MS kg/ha grazed	-	1067	1311
MS kg MS/cow	-	550	550
Dairy RSU	-	6207	7870
Total RSU	6581	7313	7896
Total RSU/ha (eff pasture area)	25.1	28.1	30.3
Lactation Length	-	335	335
Cows/ha	-	1.9	2.4
Cows October	-	505	640
Dairy Cows June	400	505	640
Dairy Cows July	400	505	640
Dairy Grazing RSU	-	247	261
Beef RSU	3334	-	-
Sheep RSU	3247	859	-
Dairy Grazing RSU/ha (Eff past)	-	0.95	0.97
N lost kg/ha/yr	34	29	28

¹Stage 0 – Baseline – All Farms (v1) (Environment Southland) - Base

²Stage 3 – Proposed Dairy Milking w/lease (v1) (Environment Southland) - Prop w

³Stage 4 -- Proposed Dairy Milking w/o lease (v1) (Environment Southland – Prop wo

6. The Base Model showed an area of 18 ha of swedes grazed by beef animals in the winter with a yield of 15 tDM/ha and the 17 ha of swede grazed by sheep in the winter with a yield of 12 tDM/ha. The Prop w Model had 8 ha of kale grazed in the winter by sheep with a yield of 12 tDM/ha. Both the Prop w and Prop wo had 45 ha of barley sown in Oct and harvested with a yield of 8 tDM/ha and residual grazed by dairy cows. The grain was harvested in March for the Prop w model but no harvest date for the Prop wo model (see Table 2 below).

7.

Table 2: Crop Details

	Base	Prop w	Prop wo
Barley Grain (ha)	-	45	45
Barley Yield (tDM/ha)	-	8	8
When harvested	-	March	? no harvest date
Grazed by	-	Dairy cows	Dairy cows
Swedes (ha) – Crop	18	-	-
Swedes Yield (tDM/ha)	15	-	-
When grazed	June-Sept	-	-
Grazed by	Beef	-	-
Swedes (ha) – Crop	17	-	-

Swedes Yield (tDM/ha)	12	-	-
When grazed	June-Aug	-	-
Grazed by	Sheep	-	-
Kale (ha) - Crop	-	8	-
Kale Yield (tDM/ha)	-	12	-
When grazed	-	June-Aug	-
Grazed by	-	Sheep	-

8. The soils for each of the models were compared as shown in Table 3 below. There is a difference between models for Temar_3a, Brax_4a and Kau_7a soils.

Table 3: Soil Details for Year End 2021 and Proposed

	Base	Prop w	Prop wo
Pukem_6a.1	185.5	191	184.9
Makar_3b.1	83.9	82.4	88.5
Temar_3a.1	19.2	24.7	31.3
Brax_4a.1	16.1	6.6	-
Kau_7a.1	8.7	8.7	8.7

9. Supplements are imported to meet cow demand (see Table 4 below). Pasture silage has been made where there was a surplus of pasture. The Base model had pasture growth calculated at 14.7 tDM/ha for the sheep grazed area and 17.2 tDM/ha for the beef grazed area dairy area. The Prop w model had a pasture growth of 11.8-11.9 tDM/ha for dairy pasture and 15.1 tDM/ha for the sheep grazed area. This is a slight increase of decrease of 2.6% in pasture growth for the sheep grazed area. The Prop w model had a pasture growth of 12.3 tDM/ha for dairy pasture. The decrease in the pasture growth in the dairy area for both the proposed models can be account for in the large increase in supplement imported and 100% wintering in the barn for 5 months. The N used on all pasture blocks in the Base models was 58-152 kgN/ha compared to 74-106 kgN/ha for the Prop w and 55-87 kgN/ha for the Prop wo. There is expected to be 79.6% and 89.4% more supplement imported, respectively, for the Prop w and Prop wo models when compared to the Base model. The silage harvest is expected to increase by 88.5% and 91.1% respectively for the Prop w and Prop wo models when compared to the Base Model (See Table 4 below).

Table 4: Supplements imported and Harvested

	Base	Prop w	Prop wo
Supplements Imported (tDM)	200	981	1880
Supplements Imported Effective Area (tDM/ha)	0.64	3.13	6.00
Silage Harvested (tDM)	75	650	850
Silage Harvested Pasture (tDM/ha)	0.24	2.07	2.71
Total Area (ha)	340.1	340.1	340.1
Effective Area (ha)	313.4	313.4	313.4
Effective Pasture Area (ha)	262.4	260.4	268.4
Total RSU	6581	7313	7896
Total RSU/ha (effective pasture area)	25.1	28.1	30.3
Peak Cows/ha	-	1.9	2.4
N Fertiliser applied non -effluent area(kgN/ha)	-	74	55
N Fertiliser applied effluent Area (kgN/ha)	-	74-118	55-118
N Fertiliser applied to support area (kgN/ha)	58-152	-	-
Pasture Growth sheep area only (tDM/ha)	14.7	15.1	-
Pasture Growth support area (tDM/ha)	17.2	11.8-11.9	12.3
Pasture Growth dairy area (tDM/ha)	-	11.8-11.9	12.3

Overseer Outputs

10. The N lost to water for the Base model was 34 kgN/ha/yr (11629 kgN/annum) compared to 29 kgN/ha/yr (9907 kgN/annum) for the Prop w model and to 28 kgN/ha/yr (9620 kgN/annum) for the Prop wo model which is, respectively, a 14.8 % and 17.3% reduction in total N loss. The P lost to water for the Base model was 1.9 kgP/ha/yr (633 kgN/annum) compared to 1.9 kgP/ha/yr (646 kgN/annum) for the Prop w model and to 1.9 kgP/ha/yr (648 kgN/annum) for the Prop wo model which is, respectively, a 2.1% and 2.4% increase 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 v6.4.3	Base	Prop w	Prop wo
N lost to water kg/ha/yr	34	29	28
Total N lost kg/farm	11629	9907	9620
P lost kg/ha/yr	1.9	1.9	1.9
Total P lost kg/farm	633	646	648
<i>Other sources – N</i>	172	316	364
<i>Other sources – P</i>	61	97	110

Change in block pools

11. 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 not being immobilized or mineralised for all models (see Table 6 below).

12. 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 all models (see Table 6a below).

Table 6: Change in block pool (N)

	Base	Prop w	Prop wo
Organic Pool	47	77.1	61
Inorganic Mineral	0	0	0
Inorganic Soil Pool	15	0	36

Table 6a: Change in block pool (P)

	Base	Prop w	Prop wo
Organic Pool	7	13.3	8
Inorganic Mineral	1	1	1
Inorganic Soil Pool	21	11.1	19

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.

13. The Biological fixation for the Base Model is 83 compared to the Prop w model at 94.2 and Prop wo model of 85 (see table 7a below).
14. The increase in biological fixation in the Prop w and Prop wo models can be explained by the large increase in pasture silage harvested and use of the Wintering Barn which offsets the increase in N fertiliser applied.

Table 7: Biological fixation

	Base	Prop w	Prop wo
Biological Fixation (kg/ha/yr)	83	94.2	85
Average N applied to whole farm kg/ha/yr	50 (47.9 to all pasture)	106 (74 to non-effluent & 100 to effluent pasture)	87 (55 to non-effluent and 83 to effluent pasture)

Pasture Production

15. The average effluent (liquid and solids) N inputs for the Prop w model was 80 kgN/ha to 259.7 ha of pasture (see table 8 below). The average effluent N inputs (liquids and solids) for Prop wo model was 107 kgN/ha to 259.7 ha of pasture.
16. Fertiliser inputs of N, for the Prop w model to effluent and non-effluent pasture was 88 kgN/ha and 55 kgN/ha respectively (see Table 8 below). The combined fertiliser inputs of N to pasture onto effluent and non-effluent area was 157-186 kgN/ha and 74 kgN/ha respectively to pasture. Fertiliser inputs of N, for the Prop wo model to effluent and non-effluent pasture was 100 kgN/ha and 74 kgN/ha respectively (see Table 8 below). The combined fertiliser inputs of N to pasture onto effluent and non-effluent area was 143-194 kgN/ha and 55 kgN/ha respectively to pasture.
17. Liquid effluent is applied onto pasture block for all the models was applied September to May and December to February on the barley crop using a <12 mm application method. Solids effluent from pond was applied to pasture only blocks in December and February in the Prop w model and December and March to the Prop wo model.

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

	Prop w	Prop wo
Effluent Liquid Area (ha)	259.7 + 45 ha crop	259.7 + 45 ha crop
Effluent Solids Area (ha)	259.7	259.7
Pasture Growth (tDM/ha/yr)		
Effluent	11.8-15.1	12.3
Non-Effluent	11.8	12.3
N Fertiliser inputs (kg/ha/yr)		
Effluent	100 (74-106)	83 (55-87)
Non-Effluent	74	55
N Effluent Inputs (kg/ha/yr)		
Effluent	80	88-107
Non-effluent (includes solids)		
Total N Inputs (kgN/ha/yr)		
Effluent	154-186	143-194
Non-Effluent	74	55

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 all the models would be considered moderate.
20. It is assumed the Base model 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 pasture production for the Base model ranged from 14.7 tDM on the sheep only grazed pasture and was 17.2 tDM/ha for the beef only grazed pasture. The Prop w model pasture production was 11.8-11.9 tDM/ha for the dairy/ dairy grazed pasture and 15.1 tDM/ha for the sheep grazed pasture. The Prop w model pasture production was 12.3 tDM/ha for the dairy/ dairy grazed pasture. The sheep grazed pasture production in the Prop w model is consistent with the Base model sheep grazed pasture production. The pasture production for the Base Model is respectively 13.6% and 26.2% higher than the Southland average (see Tables 4, 4a and 8 above). The Prop w and Prop wo models for dairy/dairy grazed pasture production is respectively 6.7% and 3.1% less than the Southland average.
23. Base 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 Base 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. This accounts for the high pasture production on the sheep grazed area but not the high pasture harvest for the beef grazed pasture.
24. Prop w model: The drop in pasture growth can be accounted for in the large increase in supplement imported (79.6%) and animals being wintered in the Wintering Barn for 5 months but is offset by the large increase in pasture silage harvested (88.5%).
25. Prop wo model: The drop in pasture growth can be accounted for in the large increase in supplement imported (89.4%) and animals being wintered in the Wintering Barn for 5 months but is offset by the large increase in pasture silage harvested (91.2%).
26. The animal distribution is modelled as 'No difference between blocks' and 'Based on animals present on block' with 'Default Grazing Months' for Base and Prop w models but 'Same as ratio of total animal intake' was used for the Prop wo model (no impact on N loss).

Mitigations Modelled

27. No report was provided (other than the Overseer FM reports). Overseer modelling was prepared by Miranda Hunter and Victoria. There are several mitigation measures that have been modelled 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: Mitigations for Proposed scenarios

Presence of a wintering barn	There is a covered wintering pad/shelter in both the proposed models May to September
Wintering barn minimizes environmental impacts over winter	N loss is less in proposed models. The model has limitations in accounting for E coli or other pathogens and Critical Source areas.
High FDE application area	FDE application area is 259.7 ha for both proposed models, and 103 ha for Prop w and 139 ha for Prop wo is required to ensure N loading is less than 150 kgN/ha/annum,
FED low application rate	Application depth is proposed to be less than 12mm in both proposed models
No dairy cow winter grazing on crop	There is kale in the Prop w model but being grazed by sheep, all stock feed 100% in the wintering barn over winter

28. All mitigations identified in the OverseerFM report have been modelled correctly.
29. I have added the mitigation as no report was provided with the application other than the reports produced from Overseer FM.
30. 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.
31. 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.
32. 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.
33. The Overseer modelling completed for this farm does not have any of the 'Bad Practices' as suggested in paragraph 32, and it would be assumed the FEMP would cover any good management practices (not limited to) outlined in paragraph 31.

CONCLUDING COMMENTS

Determination of the robustness of the nutrient loss to water

34. 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?

35. Based on my experience, the N loss estimates are reasonably consistent with an operation of this scale and soil types present.
36. There are a couple of discrepancies between the models. The drawn area for the Base Model differs to that of the proposed models. Also there is no harvest date for the Barley in the Prop wo model.

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

37. The Biological fixation for the Base Model is 83 compared to the Prop w model at 94.2 and Prop wo model of 85 (see table 7a below).
38. The increase in biological fixation in the Prop w and Prop wo models can be explained by the large increase in pasture silage harvested and use of the Wintering Barn which offsets the increase in N fertiliser applied.

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

39. The rainfall information have been entered based on protocols for the location and soil type selected. The soils do vary between the models and will need addressing.

Production and stocking rate

40. The Prop w model and Prop wo model had a respective revised stocking rate of 28.1 RSU/ha and 30.3 RSU/ha or a respective 10.7% and 17.2% increase in RSU/ha.
41. Based on my experience and reviewing the NZ Dairy statistics for the 2020/2021 season, shows the average milk solids production on this property for the Prop W model at 550 kgMS/cow and 1067 kgMS/ha is respectively higher than the Southland Regional average of 424 kg MS/cow and lower than the Southland Regional average of 1,208 kgMS/ha. The Prop wo model at 550 kgMS/cow and 1311 kgMS/ha is respectively higher than the Southland Regional average of 424 kg MS/cow and higher than the Southland Regional average of 1,208 kgMS/ha.
42. The dairy cow stocking rate for Prop w and Prop wo model at 1.9 and 2.4 cows/ha are respectively lower than the Southland average for the 2020/2021 season of 2.79 cows/ha (Southland).
43. It is assumed that the Base model is based on actual year end information. Please note in both the proposed models there is no mean calving or dry off date for the dairy cows.

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

44. Long term pasture growth in Southland between 1979 and 2012 indicated that average pasture growth for newer pastures was 12.7T DM/ha/yr.

45. The pasture production for the Base model ranged from 14.7 tDM on the sheep only grazed pasture and was 17.2 tDM/ha for the beef only grazed pasture. The Prop w model pasture production was 11.8-11.9 tDM/ha for the dairy/ dairy grazed pasture and 15.1 tDM/ha for the sheep grazed pasture. The Prop w model pasture production was 12.3 tDM/ha for the dairy/ dairy grazed pasture. The sheep grazed pasture production in the Prop w model is consistent with the Base model sheep grazed pasture production. The pasture production for the Base Model is respectively 13.6% and 26.2% higher than the Southland average (see Tables 4, 4a and 8 above). The Prop w and Prop wo models for dairy/dairy grazed pasture production is respectively 6.7% and 3.1% less than the Southland average.
46. Base 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 Base 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. This accounts for the high pasture production on the sheep grazed area but not the high pasture harvest for the beef grazed pasture.
47. Prop w model: The drop in pasture growth can be accounted for in the large increase in supplement imported (79.6%) and animals being wintered in the Wintering Barn for 5 months but is offset by the large increase in pasture silage harvested (88.5%).
48. Prop w model: The drop in pasture growth can be accounted for in the large increase in supplement imported (89.4%) and animals being wintered in the Wintering Barn for 5 months but is offset by the large increase in pasture silage harvested (91.2%).
49. The animal distribution is modelled as 'No difference between blocks' and 'Based on animals present on block' with 'Default Grazing Months' for Base and Prop w models but 'Same as ratio of total animal intake' was used for the Prop wo model (no impact on N loss).
50. I have assumed an adequate level of robustness around the Base Model 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 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 models to be **medium**, this is due to the following:

- Please explain why there is no mean calving or dry off dates for dairy cows
- Please explain why there is no harvest date for the barley crop in the Prop wo model
- Please explain why the drawn area for the Base model differs to that of the proposed models
- Please explain why the soil areas/types vary between the Baseline and the proposed models and between the proposed models
- Please explain the high pasture harvest in the Base model for the beef area

Note: There is a small increase in P loss for both proposed models when compared to the Base model. Overseer does/can't show all P loss mitigations but these should be identified in the properties FEMP.

References:

<https://www.dairynz.co.nz/publications/dairy-industry/new-zealand-dairy-statistics-2020-21/>

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

MEMORANDUM

Job 10740

To: Jade McRae
From: Victroia Jones and Hamish Lowe, LEI
Date: 6 September 2022
Subject: Request for Further Information on Resource Consent Application - APP-20222055

Dear Jade

Thank you for your further request for information for Capil Grove Farm 444. The purpose of this memo is to provide responses to your questions, which are provided below.

RESPONSE

1. An explanation / justification as to why the sludge bed is appropriate to be used as an agricultural effluent storage facility within the Dairy Effluent Storage Calculator (DESC). Sludge beds are generally considered effluent treatment facilities, not storage facilities. If the sludge bed is considered appropriate as an effluent storage facility then please provide pond drop test results undertaken by a suitably qualified person, in accordance with Appendix P of the proposed Southland Water and Land Plan. Please also provide details on how the effluent is isolated within one side of the sludge bed when the tanks are full, what alarm systems are in place on the sludge bed to alert the PIC it is full and whether effluent can be irrigated directly from the sludge bed.

Response: The sludge bed is not intended on being used as a storage facility. It was added in the calculator as this facility contributes to the FDE effluent system via catching rainfall. That is why the pond has been designed to be big enough to catch the effluent that is expected to be generated from the whole farming operation, and without using the sludge bed as a storage facility. It is also why the effective volume of the sludge bed is 0.0 m³ in the DESC.

Storage pumped? On

Covered: No

Type: Regular - Rectangular

Dimensions: length 16m, width 18m, and depth 1m

Volumes: Freeboard volume 28.5m³, effective volume 0.0m³, sludge volume 226.9m³, total volume 255.3m³

2. A Farm Environmental Management Plan and a written record of the good management practices occurring on the **applicant's** other farm; Capil Road Farm. I am requesting this information because housing 200 cows in the winter barn from Capil Grove Farm results



in both properties (Farm 444 and Capil Grove Farm) being part of the overall “landholding” as defined in the Glossary section of the Proposed Southland Water and Land Plan.

Response: See attached to the email.

3. The Riparian Management Plan mentioned in Section 5.5 of the Farm Management & Conversion Environmental Plan included as Appendix B of the application.

Response: The riparian management plan has not been completed or attached as it has not been updated to reflect the recently purchased properties. As these have only recently been purchased, and the properties are going to be combined under a new farming operation, no new riparian plantings are expected this coming season. Once the farm is under operation, then the applicant will decide where/ if new riparian plantings are required. Note that all waterways are fenced and cattle cannot enter waterways.

4. A description of the existing wetland area located at approximately NZTM2000 1251179E 4873341N. The description should include the range and diversity of any indigenous ecosystems and habitats located within this area, any physical works that has been undertaken to preserve, protect or restore this area, when that works was undertaken and any future plans for this area. Photos of this area would also be helpful.

Response: This area is a gorse and pastoral area that has been used for grazing both in the past and currently. There are no indigenous ecosystems and habitats located in this area. Capil grove do not intend on making this a wetland.

The National Policy Statement for Freshwater Management 2020 defines a wetland below.

A natural wetland means a wetland (as defined in the Act) that is not:

(a) a wetland constructed by artificial means (unless it was constructed to offset impacts on, or restore, an existing or former natural wetland); or

(b) a geothermal wetland; or

(c) any area of improved pasture that, at the commencement date, is dominated by (that is more than 50% of) exotic pasture species and is subject to temporary rain derived water pooling.

As can be seen in the photos provided in Appendix A, the makeup of this area is far more than 50% exotic pasture species.

The Resource Management Act further defines a wetland as:

Permanently or intermittently wet areas, shallow water, and land water margins that support a natural ecosystem of plants and animals that are adapted to wet conditions.

This area does not support natural ecosystem of plant and animals adapted to wet conditions as there are no wet areas (except during heavy rainfall which causes temporary puddling, as occurs with other areas of the property and Southland).



The vegetation of this area is unimproved compared with other areas of the farm. There is gorse and other low performing pasture species in this area, and in recent years weed management has been taking place to improve the quality of the pasture. This includes fencing the area off and digging up the root systems of the gorse. This was occurring **before the Lindsay's purchased the property** and is typical of weed management which has occurred on other areas of the property in the past. The works has not been fully completed but is in the process of being completed.

- Confirmation that the applicant is applying to discharge agricultural effluent to land via a slurry tanker at 5mm depth on Category C land. The discharge has been assessed as a discretionary activity against RWP Rule 50, however high rate discharge on Category C land is a non-complying activity under Rule 50(f). If high rate discharge via slurry tanker on Category C land is proposed then please provide further assessment on potential effects for this proposed activity.

Response: Slurry tankers are not high rate discharges. Applying 5 mm of effluent on Category C land is still under the Max depth for both low rate and high rate tools, as shown in Figure 4.5 of the application. Capil grove does not intend on applying effluent at high rates onto Category C land. This is particularly the case as they would not want to drive a slurry tanker on land that is too steep, not only for environmental reasons, but also safety reasons. Further, at risk times (which are to be avoided for the above reasons) **are typically when the soil's are wet and** this would lead to soil compaction issues.

Category	A	B	C	D	E
Soil and landscape feature	Artificial drainage or coarse soil structure	Impeded drainage or low infiltration rate	Sloping land (>7°) or land with humps & hollow drainage	Well drained flat land (<7°)	Other well drained but very light flat land (<7°)
Risk	High	High	High	Low	Low
Application depth (mm)	< SWD ¹	< SWD	< SWD	< 50% of PAW ²	≤ 10 mm & < 50% of PAW ³
Storage requirement	Apply only when SWD exists	Apply only when SWD exists	Apply only when SWD exists	24 hours drainage post saturation	24 hours drainage post saturation ⁴
Max depth: High rate tool	10 mm	10 mm	10 mm ⁵	25 mm ⁴ (10 mm at field capacity)	10 mm
Max depth: Low rate tool	25 mm	25 mm	10 mm	25 mm	10 mm

Figure 4.5: FDE application guide (Dairy NZ).

- An assessment of the water take from a spring against Appendix L.2 (pSWLP). I am requesting this information because Table L.2 of the proposed Southland Water and Land plan classifies any groundwater take within 5 metres of a surface water body as having Riparian hydraulic connection and should be managed by considering the water take as an equivalent surface water take, unless there is clear hydrogeological evidence that demonstrates that pumping from the groundwater source will not impact on the surface water body.



Response: There are no surface water bodies within 5 m that are classified as requiring **stream depletion effects to be assessed. As mentioned in Appendix L.2, "water bodies characterised as ephemeral will be excluded from consideration of stream depletion effects".** The surface body is an ephemeral and the only time where this would flow is during a heavy rainfall/ flood event as mentioned in Section 6.2.2 of the application.

Appendix L.2 Stream depletion effects

The stream depletion effects resulting from groundwater abstraction will be classified and managed following the criteria outlined in Table L.2:

- assessment of the magnitude of stream depletion will be supported by a conceptual hydrogeological model that describes the nature of local surface water/groundwater interaction;
- calculation of the magnitude of stream depletion will be undertaken using relevant analytical or numerical assessment techniques which are suitable for application in the hydrogeological setting in which abstraction will occur;
- representative hydraulic properties for assessment of the magnitude of stream depletion will be derived from aquifer testing undertaken in accordance with requirements outlined in Appendix L.1, as well as an assessment of representative values from the wider hydrogeological environment;
- water bodies characterised as ephemeral will be excluded from consideration of stream depletion effects;

7. If the hydraulic connection is 'riparian', or 'direct' as defined in Appendix L.2 of the proposed Water and Land Plan, and clear hydrological evidence that demonstrates the pumping will not impact the surface water body is not available, an assessment of:
- a. The stream depletion effect (in litres per second),
 - b. The Q95 and median flows of the adjacent surface waterway (not including **any effect from the applicant's water take**),
 - c. Cumulative allocation from the stream and wider catchment,
 - d. A description of how minimum flows will be observed, or how adverse effects on the values of the waterway will be avoided or mitigated, and
 - e. If the take will be subject to a minimum flow restriction, a description of how the applicant will continue to operate during the periods that the restrictions apply.

Response: As above.

8. Confirmation of the size of the proposed winter barn. I am requesting this information because the main application document and DESC specify $4,590\text{m}^2$ (current barn) + $3,650\text{m}^2$ (new barn) = $8,240\text{m}^2$ combined but the Part B form says $4,590\text{m}^2$ (current barn) + $4,380\text{m}^2$ (new barn) = $8,970\text{m}^2$ combined.



Response: Sorry this was a mistake as the estimated barn size changed part way through the application. The correct size is current barn (4,590 m²) + new barn dimensions being 36.5 m x 120 m (4,380m²) (as mentioned in Section 4.3 of the application) = 8,970 m² combined. I note 8,240 m² has been used in the DESC, but again **this is a mistake. However, this won't affect the** DESC as the rainwater is diverted as the barns are covered. I have attached the DESC below in Appendix B to show there has been no change in required effluent storage.

9. Confirmation of how many cows the applicant proposes to accommodate combined in the existing and proposed Winter barns. I am requesting this information because the main application document states 956 cows but table 4.3 on page 19 of the winter barn application and the DESC have used 840 in May to October.

Response: The barn has the capacity to hold upto 956 cows, however the applicant only intends on holding upto 840 cows.

10. Confirmation that the winter barn repairs stipulated in Condition 8 of AUTH-20211143-04 have been completed. If so, then please provide evidence of the completed repairs. If not, please provide a plan of when, how and who will undertake the repairs.

Response: Yes, repairs have been completed. Please see attached evidence in Appendix C.

11. Confirmation that the land at the southern end of the farm known as Lot 2 DP 13790 is owned by Caleb Harwood. If so, please provide some form of agreement between Caleb Harwood and Capil Grove Limited confirming the landowner is aware of the activities that are proposed to be undertake on Lot 2 DP 13790. I am requesting this information **because Council's GIS system shows this land is not owned by Capil Grove Limited and** I cannot find a connection between Caleb Harwood and Capil Grove Limited.

Response: The sales and purchase agreement was in the process of being signed when the application was applied for to ES. Capil Grove now officially own this block. See Purchase and Sales Agreement in Appendix D.

12. An explanation as to the management of the calves produced by the milking herd. Are all calves sold as 4 day olds? Or are the calves raised until weaning and then sold? I am requesting this information because the Overseer Nutrient budgets do not show any calves on the property at any time of the year.

Response: Yes, calves sold at 4 days old.

13. Confirmation that all mature age milking cows will get in calf via Artificial Breeding (AB). I am requesting this information because there are no mating bulls present in the Overseer Nutrient budgets at any time of the year.

Response: Capil Grove buy the replacement cows in calf as the farmer is paid by Capil Grove to leave the bulls in for an extra period of time. There are no bulls intended to be on the farm.



14. Additional information to address the concerns raised in the attached pond design review report undertaken by RDA. I am requesting this information because the reviewer does not consider that the proposed pond design meets IPENZ Practice Note 21.

Response: We have sent the queries of the pond auditor through to the Engineer who has completed the design and will await his response. We will send his response/required changes through once we receive them.



Appendix A
Gorse Area Photos













Appendix B
Updated DESC



Dairy Effluent Calculator Report



Disclaimer

I/We acknowledge and agree that:

1. the results contained in the report which DairyNZ will provide following my/our use of the Dairy effluent storage calculator ("the calculator") are generated based on the data which I/we have inputted into the calculator; and
2. the reliability of the results and the report is dependent upon a number of variables including, without limitation, the accuracy of the input data, and the validity of the assumptions and algorithms used in the calculator in relation to the input data which may be updated to reflect development in effluent knowledge; and
3. the results contained in the report cannot be relied upon solely to ensure the effluent storage system:
 - a. meets the current or future requirements of the district or regional plans of the local territorial authority or regional council or any other authority having jurisdiction.
 - b. has the storage capacity to allow practical management of the effluent system.

Accordingly, DairyNZ does not accept liability for any loss, damage, cost or expense suffered or incurred by me/us or any third party to whom this report has been provided (whether by me/us or another person) in connection with the use of, and reliance on, the report and the results contained in it.

DairyNZ's website terms and conditions (which can be found at <https://www.dairy.co.nz/terms-and-conditions>) otherwise apply to the use of this service and the provision of the report and the results in it.

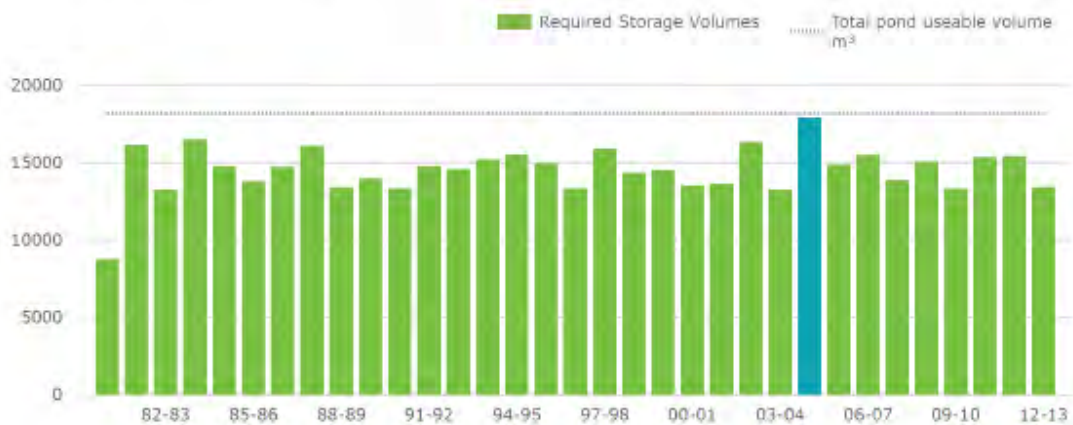
Farm 444 DESC - Stage 4 barn dimensions corrected

444 Springhills-Tussock Creek Road

Supplier Number	
Storage max m³	17,902.36
90th percentile m³	16,136.67
Total pond useable volume m³	18,180.00
File owned by	Victoria Jones Lowe Environmental Impact
Created by	Victoria Jones Lowe Environmental Impact
Created on	19 Jul 2022
Last edited by	Victoria Jones Lowe Environmental Impact
Last edited on	19 Jul 2022

Stage 4 - No lease, new effluent pond, new winter barn, 200 cows from Capil Grove. 16,136 m³ required for 640 cows from 444 Farm (milking year round) and 200 cows from Capil Grove Farm (wintering in barn) at 5 mm depth (if not applying effluent Mid May- Mid Sep).

Required Storage Volumes





Dairy Effluent Calculator Report



Climate

Site	Mean Rainfall mm	Altitude m
Winton	958	44

Soil

Low Risk Soil ha	Minimum High Risk Soil ha	Surplus high risk soil ha
0	340	315

Irrigation

Calculated option	Application depth mm	Pump volume m ³
Specified	5	200

Solid Storage Volumes --- No Data Available

Catchment

Shed		Yard		Feedpad			Animal Shelter			Other
Area m ²	Diverted	Area m ²	Diverted	Area m ²	Covered	Diverted	Area m ²	Covered	Diverted	Area m ²
404	Yes	970	No	0	No	No	8970	Yes	Yes	0

	Yard				Animal Shelter		
	Cows	Hours	Volume m ³	Wash LCD	Cows	Hours	Volume m ³
Jan	640	6	32	50	0	0	0
Feb	640	6	32	50	0	0	0
Mar	640	6	32	50	0	0	0
Apr	640	6	32	50	0	0	0
May	640	6	32	50	840	20	0
Jun	640	6	32	50	840	24	0
Jul	640	6	32	50	840	24	0
Aug	640	6	32	50	840	24	0
Sep	640	6	32	50	840	20	0
Oct	640	6	32	50	0	0	0
Nov	640	6	32	50	0	0	0
Dec	640	6	32	50	0	0	0



Dairy Effluent Calculator Report



Calendar

Milking	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Jan																															
Feb																															
Mar																															
Apr																															
May																															
Jun																															
Jul																															
Aug																															
Sep																															
Oct																															
Nov																															
Dec																															
Animal Shelter Diversion	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Jan																															
Feb																															
Mar																															
Apr																															
May																															
Jun																															
Jul																															
Aug																															
Sep																															
Oct																															
Nov																															
Dec																															
Non Irrigation	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Jan																															
Feb																															
Mar																															
Apr																															
May																															
Jun																															
Jul																															
Aug																															
Sep																															
Oct																															
Nov																															
Dec																															

Solid Unit

No Data Available





Dairy Effluent Calculator Report



Storage

Emergency Storage Period 0

<i>Storage Name</i>	<i>Covered</i>	<i>Pumped</i>	<i>Type</i>	<i>Dimension</i>
Weeping Wall	No	On	Regular - Rectangular	length 16m, width 18m, height 1m, sludge height 0.9m freeboard height 0.1m and batter 1:1
New Pond	No	On	Regular - Rectangular	length 82.25m, width 53m, height 8.5m, sludge height 0.5m freeboard height 0.5m and batter 2:1



Dairy Effluent Calculator Report



Appendix

<i>Season</i>	<i>Required Storage Volumes m³</i>
80-81	8,751.70
81-82	16,150.07
82-83	13,273.39
83-84	16,486.68
84-85	14,763.06
85-86	13,763.38
86-87	14,725.03
87-88	16,083.04
88-89	13,437.88
89-90	13,976.65
90-91	13,372.81
91-92	14,754.18
92-93	14,569.52
93-94	15,225.54
94-95	15,534.25
95-96	14,948.38
96-97	13,352.89
97-98	15,901.79
98-99	14,353.32
99-00	14,524.38
00-01	13,514.37
01-02	13,608.43
02-03	16,346.60
03-04	13,254.94
04-05	17,902.36
05-06	14,865.63
06-07	15,495.98
07-08	13,867.81
08-09	15,074.44
09-10	13,316.72
10-11	15,366.52
11-12	15,437.96
12-13	13,438.07



Appendix C
Evidence of Cracks Fixed











Appendix D
Sales and Purchase Agreement
Caleb Harwood and Capil Grove



SCHEDULE 2
List all chattels included in the sale
(strike out or add as applicable)

Stove	Rangehood	Wall oven	Cooktop
Dishwasher	Kitchen waste disposal	Light fittings	Smoke detector(s)
Burglar alarm	Heated towel rail(s)	Heat pump(s)	Garage door remote control(s)
Blinds	Curtains	Fixed floor coverings	

SCHEDULE 3
Residential Tenancies

Name of Tenant(s):

Rent: Term: Bond:

Commercial/Industrial Tenancies
(If necessary complete on a separate schedule)

1. Name of Tenant(s):
Rent: Term: Right of Renewal: Other:

2. Name of Tenant(s):
Rent: Term: Right of Renewal: Other:

WARNING (This warning does not form part of this agreement)
This is a binding contract. Read the information set out on the back page before signing.

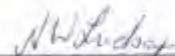
Acknowledgements

Where this agreement relates to the sale of a residential property and this agreement was provided to the parties by a real estate agent, or by a licensee on behalf of the agent, the parties acknowledge that they have been given the guide about the sale of residential property approved by the Real Estate Authority.

Where this agreement relates to the sale of a unit title property, the purchaser acknowledges that the purchaser has been provided with a pre-contract disclosure statement under section 146 of the Unit Titles Act.

Signature of Purchaser(s):

Signature of Vendor(s):


 Director / Trustee / Authorised Signatory / Agent / Attorney*
 Delete the options that do not apply
 If no option is deleted, the signatory is signing in their personal capacity


 Director / Trustee / Authorised Signatory / Agent / Attorney*
 Delete the options that do not apply
 If no option is deleted, the signatory is signing in their personal capacity

Director / Trustee / Authorised Signatory / Agent / Attorney*
 Delete the options that do not apply
 If no option is deleted, the signatory is signing in their personal capacity

Director / Trustee / Authorised Signatory / Agent / Attorney*
 Delete the options that do not apply
 If no option is deleted, the signatory is signing in their personal capacity

- *If this agreement is signed under:
- (i) a Power of Attorney – please attach a Certificate of non-revocation (available from ADLS 4098WFP or REINZ); or
 - (ii) an Enduring Power of Attorney – please attach a Certificate of non-revocation and non-suspension of the enduring power of attorney (available from ADLS 4987WFP or REINZ); or
 - (iii) where the attorney signs for a trustee, a Certificate in the relevant form in Schedule 4 to the Trustee Act 1956.

Also insert the following wording for the Attorney's Signature above:
 Signed for [full name of the donor] by his or her Attorney (attorney's signature).



IN ACCOUNT WITH -

AWS Legal
Solicitors
PO Box 1207
INVERCARGILL 9840

Capil Grove Limited
C/- Cunningham Taylor Law
PO Box 1003
Christchurch 8140

SETTLEMENT STATEMENT

**C E HARWOOD TO CAPIL GROVE LIMITED - 346 SPRINGHILLS TUSSOCK CREEK ROAD
SETTLEMENT DATE: 1 APRIL 2022**

Consideration as per GST Tax Invoice (attached)	445,305.96	
Deposit paid		44,500.00
Balance of funds required for settlement as at 1 April 2022		\$400,805.96
	<u>\$445,305.96</u>	<u>\$445,305.96</u>

NOTES:

1. Purchaser to arrange own insurance.
2. Settlement to be in accordance with our settlement requirements attached.

E. & O.E.
AWS Legal
per:

24 March 2022

Attachment 3

Te Ao Marama Inc Submission

17 November 2022

Consents Manager
Environment Southland
Private Bag 90116,
Invercargill 9810

Tēnā Koe,

RE: Submission on Resource consent application – APP-20222055

Please find attached a submission lodged, on behalf of Waihōpai Rūnaka on Resource Consent applications to renew their current discharge permit and two land use consents for effluent storage and a winter barn as well as a new water permit to take groundwater for a dairy operation. They also require a land use consent to establish a new dairy farm by Capil Grove Limited.

We trust the information contained within the submission is sufficient; however, should you wish to discuss any aspect further, please do not hesitate to contact me.

Nāhaku noa nā,



Stevie-Rae Blair
Te Ao Marama Inc.
Kaitohutohu Taiao

To: Environment Southland
Private Bay 90116
Invercargill

1. This is a submission on the application (APP-20222055) for a suite of dairy consents at 444 Springhills-Tussock Creek Road, Springhills.
2. Waihōpai Rūnanga submission relates to the applications in their entirety (Appendix A). Waihōpai Rūnanga is **OPPOSED** to the granting of the applications.
3. Waihōpai Rūnanga does wish TO BE HEARD in support of its submission.
4. Waihōpai Rūnanga is not a trade competitor for the purposes of section 308B of the Resource Management Act 1991.
5. A copy of this submission has been sent to the applicant.

Signed for and on behalf of Waihōpai Rūnaka.



Stevie-Rae Blair
77 Don Street,
Invercargill
9810

Introduction

1. This submission is made on behalf of Waihōpai Rūnaka.

Papatipu Rūnaka

2. The Te Rūnanga o Ngāi Tahu Act 1996 (the TRoNT Act) and the Ngāi Tahu Claims Settlement Act 1998 (the Settlement Act) give recognition to the status of Papatipu Rūnanga as kaitiaki and mana whenua of the natural resources within their takiwā boundaries.
3. The consent application proposals relate to a suite of dairy consents that are within the takiwā of Waihōpai Rūnaka

General Position and Reasons for the Submission

4. Cultural Values Assessment for the Makarewa¹ states that:

This cultural landscape also has linkages with the ancestral Takitimu waka (canoe) and the great explorer Tamatea.² Tamatea explored throughout New Zealand from the far north to Southland, and there are names all along the full length of the country that document his travels.³

There are several versions of the story relating to the sinking of this waka, one of which relates to the Makarewa area. The Takitimu was wrecked in Te Waewae Bay by three waves, Orokoroko, O-te-Wao and Okaka.⁴ The first two waves can give their names to ridges in the Makarewa catchment (Heale Ridge and Forest Hill, respectively).

5. Ngāi Tahu is supportive of development within its takiwā, provided activities are undertaken in a way that respects the environment where the activity is to be undertaken and do not adversely affect Ngāi Tahu cultural values, customs and their traditional relationship with land and water.
6. All landscape is important to Ngāi Tahu, because of historical and contemporary associations. These associations include (but are not limited to) the formation of landscape, wāhi ingoa

¹ Kitson 2015

² Tamatea-Ure-Haea (also known as Tamatea Pōkai Whenua, the explorer of land and Tamatea Pōkai Moana the explorer of oceans) (Garven et al. 1997; New Zealand Geographic Board, 1990)

³ New Zealand Geographic Board, 1990

⁴ Hump Ridge.

(place names), mahinga kai, kaimoana, wāhi tapū, Māori land, Mātaitai, and archaeological sites.

7. This cultural, spiritual, historic, and traditional association is recognised by the crown and is a Statutory Acknowledgement (See Appendix B) under the Ngāi Tahu Claims Settlement Act, 1998.
8. Ngā Rūnanga, as kaitiaki, are responsible as kaitiaki for protecting the mana and mauri of the environment that the application is within.
9. Ngā Rūnanga **opposes** the application for the following reasons:
 - Potential adverse effects on cultural values, rights and interests.
 - The application has failed to consider the policies within Te Tangi a Tauria, 2008 and the National Policy Statement for Freshwater 2020.
 - Effects on surface water, soils, groundwater, and the wider environment.
 - Effectiveness and quantity of mitigations to reduce effects on the environment.
 - Insufficient information to determine if the applicant is using best practice methodology for inputting to Overseer.
 - There has been no consultation/engagement with mana whenua to enable understanding of the potential adverse effects on cultural values, rights and interests.

Decision Sought

10. Ngā Rūnanga seek that there is:
 - Further information is supplied by the applicant to enable an assessment by mana whenua to ensure there are less than minor adverse effects on the environment.

STATUTORY ACKNOWLEDGEMENT FOR The Oreti River

Statutory Area

The statutory area to which this statutory acknowledgement applies is the river known as Oreti, the location of which is shown on Allocation Plan MD 123 (S.O. 12262).

Preamble

Under section 206, the Crown acknowledges Te Runanga o Ngai Tahu's statement of Ngai Tahu's cultural, spiritual, historic, and traditional association to the Oreti River, as set out below.

Ngai Tahu Association with the Oreti River

The Oreti River traverses a significant area of Murihiku, stretching from its mouth at Invercargill almost to the edge of Whakatipu-wai-maori (Lake Wakatipu). As such, it formed one of the main trails inland from the coast, with an important pounamu trade route continuing northward from the headwaters of the Oreti and travelling, via the Mavora or Von River Valley, to the edge of Wakatipu and onto the Dart and Routeburn pounamu sources. Indeed, pounamu can be found in the upper reaches of the Oreti itself.

The tupuna had considerable knowledge of whakapapa, traditional trails and tauranga waka, places for gathering kai and other taonga, ways in which to use the resources of the Oreti, the relationship of people with the river and their dependence on it, and tikanga for the proper and sustainable utilisation of resources. All of these values remain important to Ngai Tahu today.

The kai resources of the Oreti would have supported numerous parties venturing into the interior, and returning by mokihi (vessels made of raupo), laden with pounamu and mahinga kai. Nohoanga (temporary campsites) supported such travel by providing bases from which the travellers could go water fowling, eeling and catching inaka (whitebait), and were located along the course of Oreti River.

There were a number of important settlement sites at the mouth of the Oreti, in the New River estuary, including Omaui, which was located at the mouth of the Oreti, where it passes the New River Heads. Oue, at the mouth of the Oreti River (New River estuary), opposite Omaui, was one of the principal settlements in Murihiku. Honekai who was a principal chief of Murihiku in his time was resident at this settlement in the early 1820s, at the time of the sealers. In 1850 there were said to still be 40 people living at the kaik at Omaui under the chief Mauhe.

As a result of this pattern of occupation, there are a number of urupa located at the lower end of the Oreti, in the estuarine area. Urupa are the resting places of Ngai Tahu tupuna and, as such, are the focus for whanau traditions. These are places holding the memories, traditions, victories and defeats of Ngai Tahu tupuna, and are frequently protected by secret locations.

The mauri of the Oreti represents the essence that binds the physical and spiritual elements of all things together, generating and upholding all life. All elements of the natural environment possess a life force, and all forms of life are related. Mauri is a critical element of the spiritual relationship of Ngai Tahu Whanui with the river.

Attachment 4

S99 Pre-hearing Meeting Report

Report on pre-hearing meeting

Section 99 of the Resource Management Act 1991

From: Cr Neville Cook

To: Commissioner(s) or Committee to hear and determine the application

Date: 21 February 2023

Pre-hearing meeting

1. On 14 February 2023 the Environment Southland (ES), conducting its function as consent authority under the Resource Management Act 1991 invited Capil Grove Limited, who has applied for resource consent, and Te Ao Marama Incorporated on behalf of Waihōpai Rūnaka, who is a submitter on the application, to meet.
2. ES also invited – Te Ao Marama representatives in a supporting role.
3. The application was notified on 19 October 2022, submissions closed on 17 November 2022, one (1) submission was received, and one (1) submitter opposing the application indicated they wished to be heard at a hearing. The requested meeting was therefore a pre-hearing meeting held under section 99 of the RMA.
4. The meeting was held by ES at the request of Capil Grove Limited for the purpose of either clarifying a matter or issue; or facilitating resolution of a matter or issue. The meeting agenda, circulated on 10 February 2023 by ES, outlined the matters or issues for clarification or resolution as:
 - a. Nutrient budgets
 - b. Surface water quantity assessment
 - c. High rate discharge on Category C land
 - d. Dairy Effluent Storage Calculator (DESC) reliability
5. Additional matters for discussion arising before and during the meeting were:
 - a. Waihōpai Rūnaka – opposition to dairy expansion
6. The meeting was held on 14 February 2023 at 10:30 am as follows:
 - a. Location: Kea Meeting Room, at the offices of Environment Southland
 - b. Attending:
 - Applicant accessing remotely:**
 - i. Hamish Lowe – Lowe Environmental Impact
 - ii. Nelson Lindsay – Capil Grove Limited
 - iii. Carl Lindsay – Capil Grove Limited
 - Submitters present:**
 - iv. Evelyn Cook – Waihōpai Rūnaka
 - v. Maria Barlett – Waihōpai Rūnaka
 - vi. Kamaea WiRepa – Te Ao Marama Inc.
 - vii. Margaret Ferguson – Te Ao Marama Inc.
 - viii. Riria Hakiwai – Te Ao Marama Inc.

Environment Southland staff:

- ix. Councillor Neville Cook – Chair
- x. Jade McRae – Processing Officer
- xi. Catherine Ongko – Panel Assistant

- c. Apologies
 - i. Stevie-Rae Blair – Te Ao Marama Inc.

The meeting concluded at 12:19

Statutory and procedural matters

Requiring and requesting attendance

- 7. Section 99(2) allows consent authorities to request an applicant, a submitter or any other person it considers appropriate to attend a pre-hearing meeting. This can be either at the request of the applicant or submitters or on its own initiative.
- 8. In this case the applicant requested the meeting to be held and for submitters to attend. ES agreed this was appropriate and advised by email on 8 February 2023 that a meeting was to be held and requested attendance to the parties listed above.
- 9. If attendance is requested, as opposed to required, the attendance of the applicant and submitters is optional and their decision to attend can be made without prejudice. In this case, were represented.

Attendance of those delegated to make decisions

- 10. Section 99(4) states that an officer of the authority who has the power to make the decision on the application may attend, subject to the agreement of all the parties attending and participating, and if the consent authority is satisfied their presence is appropriate.
- 11. No officers with delegation to determine the application were present at the meeting

Chairperson to prepare this report

- 12. Section 99(5) and (6) require the chairperson of the meeting to prepare a report outlining particular matters, and to circulate that report to all of the parties and the consent authority (meaning, the commissioners or hearings panel that will hear and determine the application) no less than 5 working days before the hearing.
- 13. The report must, for the parties who attended the meeting:
 - a. set out the issues that were agreed; and
 - b. set out the issues that are outstanding
- 14. However, the report must not include anything communicated or made available at the meeting on a without prejudice basis.
- 15. In addition, the report may, for all the parties:
 - a. set out the nature of the evidence that the parties are to call at the hearing; and
 - b. set out the order in which the parties are to call the evidence at the hearing; and
 - c. set out a proposed timetable for the hearing.

16. The meeting did not address matters pertaining to evidence or the hearing timetable.

Status of this report and next steps

17. Section 99(6) requires the chairperson to send this report to the consent authority and all the parties so that they have it at least 5 working days before the hearing. The report was sent by email and hard copy to the parties on 21 February 2023.
18. At the time of writing, no parties have advised that they no longer wish to be heard, and the application has not yet been scheduled to be heard. It was agreed that the Applicant and parties would have 10 working days to consider the report before responding.
19. Section 99(7) **requires** the consent authority (meaning, the commissioners delegated power of the consent authority by to determine the application) to **have regard to** this report in making the decision on the application.

Issue 1

20. Issue is to be clarified or resolved?
Nutrient budgets
21. Discussion – Ms McRae on behalf of Environment Southland outlined concerns relating to the robustness of nutrient budgets for the property. It was indicated that a technical audit of the Overseer results showed some inconsistencies with the modelling. Mr Lowe on behalf of the Applicant advised that the inconsistencies were minimal in the scope of the report and further refinement would not achieve a result much different from the submitted one. Questioned around what else could be required as the Applicant is managing climate change events with barn feeding. They will deal with wintering stock issues by having no stock on the ground during winter months. The Applicant considers that their planned land use and effluent discharge is an improvement on the past farming practices on this block and there will be lower rates of discharge in winter.
22. Issues that were agreed - Agreed that Overseer is currently the best modal available. It was mentioned that measures previously considered to be mitigations, was now good practice, such as excluding stock from surface waterways. In response to Waihōpai Rūnaka suggestions around the AB Lime trial composting experiment, the Applicant agreed to give it consideration
23. Issues that are outstanding – No final agreement on the results of Overseer by the parties.

Issue 2

24. Issue is to be clarified or resolved?
Surface water quantity assessment
25. Discussion – There was discussion around whether the spring feed from a bore was surface water or groundwater. There was disagreement on the application of the Regional Plan. There was disagreement on whether the spring was ephemeral or had a connection with the nearby stream. No independent professional assessment has been completed. No stream depletion report has been prepared and the Applicant believes it is not required.

26. Issues that were agreed – related to the ‘gorse block’, and the usefulness of retention bunds and riparian plantings. The Applicant will give consideration to these actions. Creation of a wetland was suggested by Waihopai rununga and the Applicant will consider that option.
27. Issues that are outstanding – define the status of the spring with an independent expert assessment? Hydrological assessment of the stream and spring is an option.

Issue 3

28. Issue is to be clarified or resolved?
High-rate discharge on Category C land
29. Discussion – ES believe that the planned method of effluent discharge to Category C via high-rate method is a non-complying activity. The Applicant considers that discharge from a slurry tanker is a low-rate discharge method. There is no detailed assessment of the slope of the ground to be designated for the discharge i.e. less than 7Deg. There was disagreement with the rate of application calculations from the slurry tanker. With increased storage capacity there will be no discharge of effluent during winter. Stock will be housed in a covered barn. Discharge of effluent during the remainder of the year can be planned for times of low soil moisture levels.
30. Issues that were agreed - all stock will be housed indoors during winter months.
31. Issues that are outstanding – assessment of slope in the areas to receive effluent as not all land mapped in as Category C is actually over 7 degrees.

Issue 4

32. Issue is to be clarified or resolved?
DESC reliability
33. Discussion – The Applicant plans to develop the milking platform in stages, the first being to introduce milking 220 dairy cows and utilise the existing pond storage for effluent. ES considered that the calculation of storage capacity was unreliable and that the current storage was insufficient for the planned first stage.
34. Issues that were agreed – after discussion, the Applicant indicated that they would postpone the first stage of the development (introduction of milking 220 dairy cows), until the construction of a new larger storage pond was completed. Consent for that pond is a separate application (APP-20222554).
35. Issues that are outstanding – none for DESC.

Conclusion

36. Waihopai Rūnaka Spokespeople presented a number of discussion points for the Applicants consideration relating to potential mitigations for this planned development –
 - Expressed that they are generally opposed to further dairy intensification in the catchment.
 - There was an expectation that the Applicant would provide some research on biota and fish in the surface waterways.

- The planned water take from a spring of 2l/s is very low, questioning whether it was ephemeral?
 - Questioning whether K line irrigation was suitable for gentle slopes where ponding can become an issue.
 - Indicating that good management practices are not enough, additional mitigations are required, such as land repurposing and riparian planting.
 - From the perspective of Te Mana o te Wai, the catchment is already over allocated with regard to water quality.
 - There was recognition of the significant investment by the Applicant to achieve improvements.
 - But there are more efforts required to reduce both N and P into the catchment and the estuary.
 - That the Applicant should consider a composting wintering barn.
 - Peat wetland in the northern area of the farm could be considered for wetland restoration or creation.
 - The Applicant responded that consideration will be given to the suggested composting barn and wetland development.
37. The meeting concluded with the agreement that the applicant will consider the matters raised by the parties. There was a definite undertaking to delay dairy cow introduction until a larger effluent storage area is approved and constructed. Reiterated that there was no intention to have intensive winter grazing.



Councillor Neville Cook
Chair
Date: 21 February 2023

Attachment 5

Draft Consent Conditions:

- **Discharge Permit - Agricultural Effluent**
- **Water Permit**
- **Land Use Consent – Winter Barns**
- **Land Use Consent - Farming**
- **Discharge Permit - Farming**



AUTH-20222055-01

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 **Capil Grove Limited** of **27 Capil Road, RD 2, Invercargill 9872** from **Date Consent Granted**.

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 640 cows via low rate pod system and slurry tanker

Location - site locality 444 Springhills Tussock Creek Road
- map reference NZTM2000 1250581E 4872599N
- physiographic zones Gleyed, Bedrock/Hill Country and Peat Wetlands
- groundwater zone Makarewa
- catchment Makarewa River
- FMU Oreti

Legal description of land at the site: Part Lot 2 DP 2005, Lot 1 DP 12811, Section 298 Forest Hill HUN, Lot 2 DP 13790, Section 517 Forest Hill HUN, Lot 3 DP 13790 and Lot 1 DP 13793

Expiry date: **30 December 2030**

Schedule of Conditions

General conditions

1. This resource consent shall not be exercised until Discharge Permit AUTH-20211143-02 is surrendered or has expired.
2. This consent shall be exercised in conjunction with Land Use Consent AUTH-20222055-04 and Land Use Consent AUTH-20222554.

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3. This consent authorises the discharge of dairy shed effluent, wintering barn effluent and silage pad effluent (“agricultural effluent”) onto land, via a land disposal system consisting of a stone trap, sump, weeping wall and sludge bed, winter barn weeping wall, winter barn sump 1 and sump 2 and two synthetically lined effluent storage ponds to low rate pods and slurry tanker, as described in the application (APP-20222055) for resource consent dated 5 April 2022¹, additional application dated 27 April 2022², additional AEE dated 27 April 2022³ and additional information responses dated 6 September 2022 and 17 September 2022⁴. The activity shall be limited to:
- (a) the discharge to land of agricultural effluent generated from milking of up to 640 cows up to twice per day;
 - (b) the discharge to land of agricultural effluent via a low rate pod system and a high rate slurry tanker;
 - (c) the discharge of agricultural effluent to an area of 272 hectares, as per the plan attached as Appendix 1;
 - (d) the discharge of effluent from a silage storage facility no larger than XXXX m³;
 - (e) the discharge to land of winter barn effluent generated from the use of two winter barns between 1 May and 30 September (inclusive).

Commented [JM1]: I am unsure of the size of the silage storage facility as it is not noted in the DESC

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

4. No cows shall be milked in accordance with this consent until the effluent storage capacity specified in condition 17 has been completed as per Land Use Consent AUTH-20222554.
5. 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.
6. The agricultural effluent discharge shall not exceed:
- (a) a depth of application of 25 millimetres for each individual application, and an instantaneous rate of 10 millimetres per hour via a low rate pod system on Category A land;
 - (b) 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 on Category C land;
 - (c) a depth of application of 5 millimetres for each individual application via slurry tanker on Category A and C land.
7. The minimum return period for the discharge of agricultural effluent to land shall be 28 days.
8. The agricultural effluent discharge shall not occur when the moisture content of the soils is at or above field capacity.
9. 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.

¹ Environment Southland Document ID: A763106

² Environment Southland Document ID: A768436

³ Environment Southland Document ID: A768442

⁴ Environment Southland Document ID: A829931 and A833784

Exclusions

10. This consent does not authorise the discharge of:
- (a) effluent collected by a feed pad, stand-off pad, calving pad or underpass; and
 - (b) agricultural effluent via high rate slurry tanker on land exceeding 7 degrees in slope (see Appendix 2).
11. No agricultural effluent discharge shall occur between 1 June and 31 August each year.
12. No agricultural effluent 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.

13. 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.
14. The stored or discharged agricultural effluent shall not:
- (a) form ponds or flow on the land surface, or
 - (b) cause contamination of water.
15. 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.
16. Spray drift beyond the boundary of the site shall not occur.

Effluent storage

17. The agricultural effluent discharge shall occur via agricultural effluent storage facilities of between 16,136 cubic metres and 18,180 cubic metres combined capacity.
18. The Consent Holder must maintain at least 500 mm of freeboard in the agricultural effluent storage facility at all times.

System management

19. 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.
20. 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.
21. 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.
22. 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

23. 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.

24. 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.
25. 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 23 may be incorporated into the Farm Environmental Management Plan required by AUTH-20222055-04, and prepared in accordance with Appendix N, of the proposed Southland Water and Land Plan (Decisions Version) (or any updated version of the plan).*

Review of consent

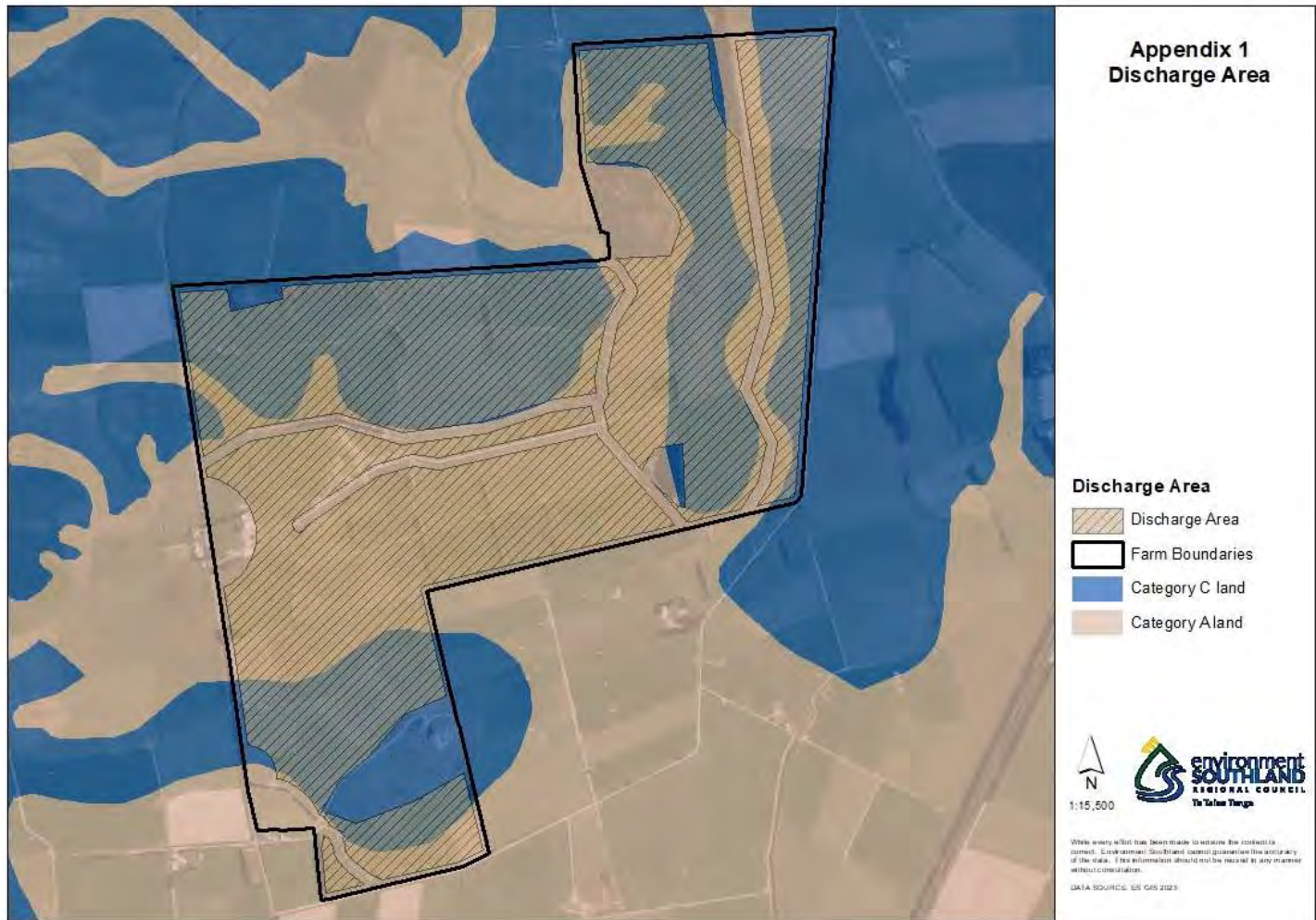
26. The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions of this consent during the period 1 February to 30 September each year, or within two months of any enforcement action 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 Ōreti 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**

[Signature]
Decision maker

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 five 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 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.*
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://maps.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 **Capil Grove Limited** of **27 Capil Road, RD 2, Invercargill 9872** from **Date Consent Granted**.

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 and dairy shed washdown

Location - site locality 444 Springhills Tussock Creek Road
- map reference NZTM2000 1250135E 4871243N
- groundwater zone Makarewa
- catchment Makarewa River

Legal description of land at the site: Lot 2 DP 13790

Expiry date: **30 December 2030**

Schedule of Conditions

1. 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) 85,800 litres per day; and
 - (c) 21,834,000 litres per year.

Advice Note

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

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.

2. 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.

3.
 - (a) Prior to the first exercise of this consent, the Consent Holder shall install 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.

4. 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.
5. 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**

Signature
Decision maker

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 **Capil Grove Limited** of **27 Capil Road, RD 2, Invercargill 9872** from **Date Consent Granted**.

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 two winter barns

Location - groundwater zone Makarewa
- FMU Oreti
- physiographic zone Gleyed
- catchment Makarewa River

Expiry date: 30 December 2030

Schedule of Conditions

1. This consent shall not be exercised until Land Use Consent AUTH-20211143-03 has been surrendered or expires.
2. This resource consent authorises the use of land for two winter barns as described in the application for resource consent dated 5 April 2022¹, additional application dated 27 April 2022², additional AEE dated 27 April 2022³ and additional information response dated 6 September 2022⁴. The activity shall be limited to:
 - (a) the use of land for two winter barns for up to 840 cows between 1 May and 30 September (inclusive); and
 - (b) the use of the land for two winter barns during adverse weather conditions.

¹ Environment Southland Document ID: A763106

² Environment Southland Document ID: A768440

³ Environment Southland Document ID: A768442

⁴ Environment Southland Document ID: A829931

3. This consent shall be exercised in conjunction with Discharge Permit AUTH-20222055-01 (or any subsequent variation versions).

4. The winter barns shall be located as described in the table below:

Legal description	Part Lot 2 DP 2005
Map Reference of existing winter barn (NZTM 2000)	1250221E 4872531N
Property address	444 Springhills Tussock Creek Road

Legal description	Part Lot 2 DP 2005
Map Reference of new winter barn (NZTM 2000)	1250289E 4872287N
Property address	444 Springhills Tussock Creek Road

5. The winter barns shall not be located within:

- (a) 50 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;
- (d) 20 metres of any mapped tile drains; and
- (e) 20 metres from any property boundaries.

6. The existing winter barns shall be:

- (a) no greater than 4,590 m² in area;
- (b) constructed with a strip drain along the northern boundary to capture effluent generated in the winter barn;
- (c) constructed with a sealed, impermeable base and a minimum depth of 500 mm of wood-based material or straw across the base; and
- (d) constructed with nibbed edges to prevent overland flow beyond the perimeter of two winter barns.

7. The new winter barns shall be:

- (a) no greater than 4,380 m² in area;
- (b) constructed with a strip drain along the eastern boundary to capture effluent generated in the winter barn;
- (c) constructed with a sealed, impermeable base and a minimum depth of 500 mm of wood-based material or straw across the base; and
- (d) constructed with nibbed edges to prevent overland flow beyond the perimeter of two winter barns.

8. Liquid effluent generated in the winter barns shall be captured and/or scraped into the strip drain, weeping wall ancillary collection sumps which are part of the effluent system authorised by Discharge Permit AUTH-20222055-01 and Land Use Consent AUTH-20222554.

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 winter barn 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 the winter barns in accordance with the conditions of Discharge Permit AUTH-20222055-01 (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 or National Policy Statement for Freshwater Management.

for the **Southland Regional Council**

Signature
Decision maker

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 **Capil Grove Limited** of **27 Capil Road, RD 2, Invercargill 9872** from **Date Consent Granted**.

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 on a farm as dairy farm land

Location - groundwater zone Makarewa
- FMU Oreti
- physiographic zone Gleyed, Bedrock/Hill Country, Peat Wetlands
- catchment Makarewa River

Expiry date: **30 December 2030**

Schedule of Conditions

1. This consent shall not be exercised until Land Use Consent AUTH-20211143-01 has been surrendered or expires.
2. 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-20222055) and all subsequent information provided during the application and the Farm Environmental Management Plan required by this consent.
3. 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.

4. This consent shall be exercised in conjunction with Discharge Permit AUTH-20222055-01, Water Permit AUTH-20222055-02, Land Use Consent AUTH-20222055-03, and Land Use Consent AUTH-20222554, or any subsequent replacement permits.

Advice Note: *Routine monitoring inspections of this consent may occur up to once a year. This number does not include any other required inspections.*

5. The use of land for farming shall occur on the landholding at 444 Springhills Tussock Creek Road, Springhills, as shown on the plan attached as Appendix 1, and comprising of Part Lot 2 DP 2005, Lot 1 DP 12811, Section 298 Forest Hill HUN, Lot 2 DP 13790, Lot 1 DP 4795, Section 517 Forest Hill HUN, Lot 3 DP 13790 and Lot 1 DP 13793, at or about map reference NZTM2000 1249823E 4872356N.

6. The farming activities shall be limited as follows:

- (a) a maximum milking herd of no more than 640 cows;
- (b) a maximum winter milking herd of no more than 640 cows; and
- (c) no milking age cows on the land during June and July (inclusive).

Advice Note: *Milking age cows on the land refers to mature age milking cows on pasture paddocks, however if mature age milking cows are being quarantined outside of the winter barn to prevent contagious ailments from spreading, then this would not be considered a breach of the above condition.*

7. The Consent Holder shall notify the Consent Authority the identity of the Person in Charge of the dairy farming activity:
 - (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

8. The Consent Holder shall not graze any young dairy stock, defined as between 4 and 20 months old, on any part of the landholding.
9. Cultivation shall not occur on any part of the landholding over 10 degrees slope.
10. Intensive winter grazing shall not occur on any part of the landholding.

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

Nutrient Management

11. 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.
12. The Consent Holder shall maintain a record of their soil testing regime, soil testing results and fertiliser recommendations required by Condition 11 within the Farm Environmental Management Plan.

13. 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.
- (c) not apply synthetic nitrogen fertiliser at a rate of more than 150 kg/ha/year on an individual hectare basis and as an average over the landholding.

14. 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) if Olsen P levels exceed a range of 24 - 30 the Consent Holder must reduce the amount of P fertiliser being applied to the landholding to ensure the risk of P loss is reduced; and
- (c) record the Olsen P results required by Condition 14(a) and any fertiliser reduction required by Condition 14(b) in their Farm Environmental Management Plan.

Nutrient Modelling

15. 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) 27 kilograms per hectare per year nitrogen;
 - (i) as estimated by the four-year rolling average loss rates using OVERSEER FM[®] version 6.5.1 undertaken in accordance with the generally accepted best practice modelling including the applicable Best Practice Data Input Standards/Overseer FM User Guide.
- (b) 1.9 kilogram per hectare per year phosphorus;
 - (i) as estimated by the four-year rolling average loss rates using OVERSEERFM[®] version 6.5.1, 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 2023.

16. 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 15 in the current version of Overseer.
17. The re-modelled baseline contaminant loss rates, modelled in accordance with Condition 16(c) shall supersede and replace the baseline contaminant loss rates specified in Condition 15.
18. 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 16. 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.
19. 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).
20. 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 18; and
 - (b) the use of the alternative model is approved by the Chief Executive of the Consent Authority.

Mitigation Measures

21. 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.
22. The Consent Holder must manage the dairy lanes so that agricultural effluent and effluent sludges from the lanes does not:
 - (a) accumulate in gateways;
 - (b) accumulate in paddocks; or
 - (c) result in the ponding, pooling, overland or lateral flow of any effluent or sludge beyond the dairy lane.

23. Except for crossings of surface waterways, the Consent Holder shall not construct any new dairy lanes within 10 metres of a surface waterbody.
24. 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.
25. The Consent Holder shall install any new permanent fencing of any temporarily fenced surface waterbodies with a minimum 3-metre buffer and provide written confirmation, along with date stamped photos, of the new fencing provided to the Consent Authority (EScompliance@es.govt.nz) by 1 July 2023.
26. The Consent Holder shall:
 - (a) construct a new winter barn, as detailed in the application, at or about NZTM2000 1250289E 4872287N; and
 - (b) provide written confirmation, along with date stamped photos, of the fully operational winter barn to the Consent Authority (EScompliance@esgovt.nz) by 1 May 2024.
27. Cows shall be housed in the winter barns, as authorised by AUTH-20222055-03, as follows:
 - (a) no less than 80% of the then milking cow herd shall be housed in the barns from 1 May to 31 May, for no less than 24 hours per day, unless cows are temporarily removed to the dairy shed or yard;
 - (b) no less than 100% of the then milking cow herd shall be housed in the barns from 1 June to 31 July, for no less than 24 hours per day, unless cows are temporarily removed to the dairy shed or yard; and
 - (c) no less than 90% of the then milking cow herd shall be housed in the barns from 1 August to 30 September, for no less than 24 hours per day, unless cows are temporarily removed to the dairy shed or yard.
28. Daily use of the winter barn must be monitored by recording the number of cows and the number of hours spent in the barn. The records of winter barn use must be maintained and supplied to the Consent Authority upon request.
29. 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 34. The plan required by this condition shall be provided to Te Ao Marama Inc (office@tami.maori.nz).
30. The Riparian Planting Plan required by Condition 29 shall include, but not be limited to the areas below:
 - (a) the planting of both sides of the waterway that runs from at or about NZTM2000 1251517E 4873933N and finishing at or about 1251565E 4872301N, as per Appendix 2;
 - (b) the planting of both sides of the waterway that runs from at or about NZTM2000 1251027E 4873269N and finishing at or about 1251376E 4872255N, as per Appendix 2;
 - (c) the planting of both sides of the waterway that runs from at or about NZTM2000 1251069E 4872691N and finishing at or about 1249718E 4872471N, as per Appendix 2;

- (d) the planting of the duck pond areas at or about NZTM2000 1249898E 4873053N and 1251261E 4872475N; and
- (e) the planting of the 8 hectare peat wetland area referred to in the application as the gorse block, at or about NZTM2000 1251190E 4873343N, as per Appendix 2.

31. The Consent Holder shall:

- (a) design and install a sediment control structure within 12 months of the granting of this consent, at or about **NZTM2000 XXXXXXXE XXXXXXXN**;
- (b) design and install a second sediment control structure within 24 months of the granting of this consent, at or about **NZTM2000 XXXXXXXE XXXXXXXN**;
- (c) record the design and management of the sediment control structures in the Farm Environmental Management Plan required by Condition 34; and
- (d) provide written confirmation, along with date stamped photos, of the first fully operational sediment control structure to the Consent Authority (EScompliance@esgovt.nz) by **[DATE]** 2024 and the second fully operational sediment control structure by **[DATE]** 2025.

32. The Consent Holder shall utilise plantain in their re-grassing programme. The plantain content shall be recommended by a suitably qualified seed representative and shall be detailed in the Farm Environmental Management Plan required by condition 34.

33. 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.

Farm Environmental Management Plan

34. The Consent Holder shall have and maintain a Farm Environmental Management Plan (FEMP) for the landholding. 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) agricultural effluent and other discharges are managed in a way that avoids or minimises the loss of contaminants to water.

35. The FEMP required by Condition 34 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;

- (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.*

36. The FEMP shall be reviewed at least once each milking season 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 31 May 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).*

37. 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

38. The Consent Authority may require the Consent Holder to have the farming activity as authorised by this consent independently audited, in accordance with Appendix 2, 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.

Lapse and Review

39. 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 Ōreti 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 as a result of the exercise of this permit.

for the **Southland Regional Council**

Signature
Decision maker

DRAFT

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:*

Due date	Condition number	Requirement
<i>Prior to exercise</i>	<i>7</i>	<i>Notify Council of Person in Charge of dairy farming activity</i>
<i>30 Sept each year</i>	<i>18</i>	<i>Report summarising results of Overseer modelling</i>
<i>1 July 2023</i>	<i>25</i>	<i>Confirm installation of permanent fencing</i>
<i>1 May 2024</i>	<i>26</i>	<i>Confirm winter barn construction complete</i>
<i>[DATE] 2024 & [DATE] 2025</i>	<i>31</i>	<i>Confirm installation of sediment control structures</i>
<i>31 May each year</i>	<i>36(a)</i>	<i>Provide updated version of FEMP if changes were made due to review</i>
<i>30 Sept each year</i>	<i>36(b)</i>	<i>Confirm no changes were made to FEMP</i>

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.*
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.*



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. This information should not be relied in any manner without consultation.

DATA SOURCE: ES GIS 2023

Appendix 2: Auditing criteria

1. 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 15 and 17.
2. 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.
3. The audit shall record the justification for each level of confidence assessment, including noting the evidence, or lack of, used to make the determination.
4. 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.
5. 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.
6. 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.
7. 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.
8. 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.
9. 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.
10. 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).



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Invercargill

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Discharge Permit

Under Section 104B of the Resource Management Act 1991, a resource consent is granted by the Southland Regional Council to **Capil Grove Limited** of **27 Capil Road, RD 2, Invercargill 9872** from **Date Consent Granted**.

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 contaminants into or onto land associated with the use of land as dairy farm land.
Location	<ul style="list-style-type: none"> - site locality 444 Springhills Tussock Creek Road - map reference NZTM2000 1249823E 4872356N - physiographic zones Gleyed, Bedrock/Hill Country and Peat Wetlands - groundwater zone Makarewa - catchment Makarewa River - FMU Oreti
Legal description of land at the site:	Part Lot 2 DP 2005, Lot 1 DP 12811, Section 298 Forest Hill HUN, Lot 2 DP 13790, Lot 1 DP 4795, Section 517 Forest Hill HUN, Lot 3 DP 13790 and Lot 1 DP 13793
Expiry date:	31 December 2030

Schedule of Conditions

1. This consent authorises the discharge of contaminants into or onto land arising from the land use activity authorised by Land Use Consent AUTH-20222055-04 and shall be exercised in conjunction with Land Use Consent AUTH-20222055-04.
2. This consent does not authorise the discharge of contaminants directly to water as a result of the activity.

3. The discharge to land activity authorised by this consent must not result in:
- (a) the production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials
 - (b) any conspicuous change in the colour or visual clarity
 - (c) any emission of objectionable odour
 - (d) the rendering of freshwater unsuitable for consumption by farm animals or
 - (e) any significant adverse effects on aquatic life

in any river, lake, artificial watercourse, modified watercourse or wetland.

for the **Southland Regional Council**

Signature
Decision maker

DRAFT