

The Hearing Commissioners

21 March 2023  
10.00 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 Commissioner(s) will hear and consider.*

**Hearing of Application – APP-20222565**  
**Fawna Farms Limited**  
Compiled by George Gericke, Senior Consents Officer

**Applicant:** Fawna Farms Limited

**Application Number:** APP-20222565

**Location:** 1620 Ohai Clifden Highway

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

**Notification:** The application was publicly notified on 16 November 2022.

**Table 1: Consents Sought**

Consent Type	Purpose
1. Discharge Permit	To discharge dairy shed effluent to land from a proposed 1,200 cows and increase the effluent disposal area by approximately 23 ha.
2. Water Permit	To take and use 179,625 L/day of groundwater for the proposed dairy operation and stock drinking water for 1,200 cows.
3. Land Use Consent	To convert land on a farm to dairy farm land that was not used as dairy farmland prior to 2 September 2020.
4. Discharge Permit	To discharge contaminants to land associated with the conversion of land to dairy farm land that was not used as dairy farmland prior to 2 September 2020.

## **1. Recommendation**

- 1.1 I recommend that the application be declined.
- 1.2 The key activity is the conversion of land on a farm to dairy farm land, and the associated discharge. It is the issues around that activity that have led me to my recommendation.
- 1.3 In my view, the issues that need to be resolved before I consider that approval of this application would be appropriate are:
- (a) compliance with Regulation 24(1)(b) of the National Environmental Standards for Freshwater that relates to effects on contaminant concentrations as at 2 September 2020;
  - (b) whether forestry on land being owned and managed by someone else can be considered an offset for the expanded dairy farming effects.
- 1.4 A related question is whether the proposed forestry can legally proceed, or if further authorisations are required under the National Environmental Standards for Plantation Forestry and/or the Southland District Plan.
- 1.5 I consider that the water take is within allocation limits, is consistent with efficient use guidance, and complies with policies on interference effects on neighbours' bores and that stream depletion effects can be disregarded. Therefore, if it was being considered separately from the land use consent application, I would support approval of the water permit.
- 1.6 I also consider that the agricultural effluent discharge to land will have no more than minor adverse effects on the environment. Therefore, if it was being considered separately from the land use consent application, I would support approval of the FDE discharge permit, excluding the discharge of contaminants associated with the conversion of land to dairy farming. This is because:
- (a) the discharge is to land in a manner that allows beneficial reuse of nutrients in the effluent;
  - (b) the nutrient loading of effluent is spread across an area broad enough to partly offset the need for fertilisers to maintain soil fertility. In other words, contaminant loadings due to the effluent discharge should not give rise to additional contaminant losses to water;
  - (c) the rate and depth of effluent discharge is designed to ensure that the hydraulic loading of the effluent can be absorbed by the soil without causing ponding or run-off, or excess leakage to groundwater or into drains;
  - (d) the system includes storage, so that the discharge can be deferred when soil conditions are unsuitable, such as when soil moisture is above field capacity;
  - (e) buffer distances will be applied to protect sensitive areas, including from spray drift.
- 1.7 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.

## 2. The application and procedural matters

### 2.1 The proposed activities

2.1.1 Consents have been sought as follows:

Applicant: Fawna Farms Limited

Application Number: APP-20222565

Activities for consent is sought: **Discharge Application**  
To discharge agricultural effluent to land from milking up to 1,200 cows via low-rate pods, travelling irrigator, slurry tanker or umbilical system onto 271.4 ha

**Water Take Application:**  
To take and use 179,625 L/day of groundwater for the proposed dairy operation and stock drinking water for 1,200 cows (increase from 140,000 L/day)

**Land use Application:**  
To convert land on a farm to dairy farm land that was not used as dairy farmland prior to 2 September 2020

**Discharge Application:**  
To discharge contaminants to land associated with the conversion of land to dairy farming that was not used as dairy farmland prior to 2 September 2020

### 2.2 Summary of the Proposal

2.2.1 The proposed activities are outlined in the submitted application. However, by way of brief summary, the applicant is seeking to replace the current Discharge Permit (AUTH-20146434-01-V2) current Water Permit (AUTH-20202016) that are due to expire on 23 May 2024 and 20 April 2030 respectively, with amendments to the permits to reflect proposed operational changes. The operational changes relate to the proposed incorporation of an additional 165.9 ha block to the existing 370.9 ha dairy farm, and to allow for an increase in peak number of cows milked from 900 to 1,200 cows.

2.2.2 For the purpose of this application it is central to note that the applicant is in the process of purchasing the additional 165.9 ha block of land from IFS Growth (a forestry management and investment company), which is proposed to be incorporated into the applicant's existing dairy farm. The additional block forms part of an adjacent larger 454.6 ha farm that is currently being operated as a dairy support, sheep, and beef trading property. Once the additional 165.9 ha block has been incorporated, the balance land of 288.7 ha is to be planted in forestry (Pinus radiata) by IFS Growth Ltd. Among other mitigation measures, the 288.7 ha forestry block is proposed as a contaminant loss offset for the proposed dairy expansion, and the applicant proposes to not commence expanded dairy activities on the new block until the 288.7 ha block has been planted in trees.

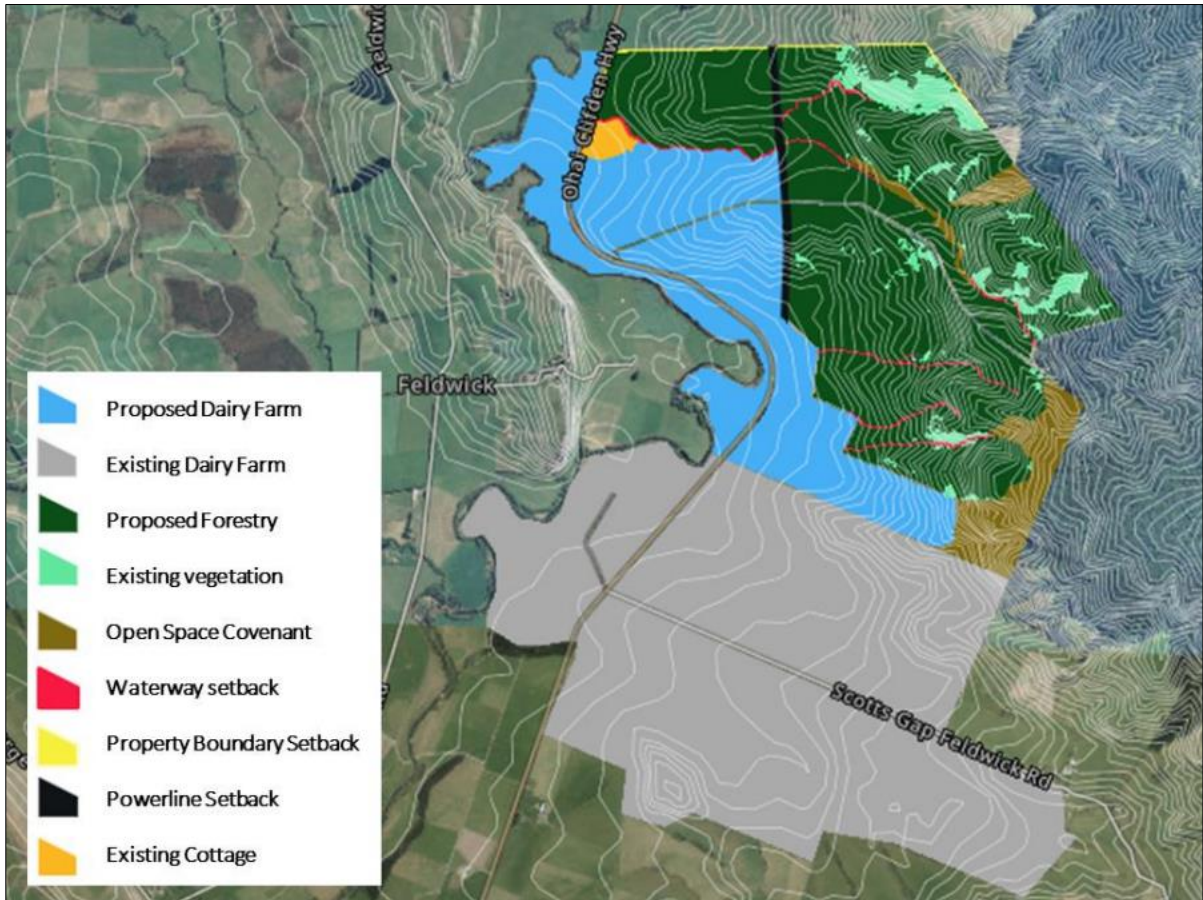


Figure 1: Location of existing dairy farm and the new 165.9 ha of flatter contour land to be added to the dairy platform and remaining 288.7 ha planted in trees (p.2 of the application)

### 2.3 Regional Planning Framework

2.3.1 Resource consents for the above activities are required under the National Environmental Standards for Freshwater 2020, the Regional Water Plan for Southland (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 ([Attachment 1](#)).

2.3.3 The relevant rules that resource consents are required under are outlined 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 agricultural effluent to land from milking up to 1,200 cows via low-rate pods, travelling irrigator, slurry tanker or umbilical system onto 271.4 ha, plus increase the discharge area with an additional proposed 23 ha.	OP: Rule 50: Discharges of dairy farm effluent to land	Restricted Discretionary activity
	PP: Rule 35: Discharge of agricultural effluent to land	Discretionary activity

Activity	Relevant Rule	Activity Status
To take and use 179,625 L/day of groundwater for the proposed dairy operation and stock drinking water for 1,200 cows (increase from 140,000 L/day)	OP: Rule 23: Abstraction and use of groundwater	Discretionary activity
	PP: Rule 54: Abstraction and use of groundwater	Discretionary activity
To convert land on a farm to dairy farm land that was not used as dairy farmland prior to 2 September 2020	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 to dairy farming that was not used as dairy farmland prior to 2 September 2020	NES: Regulation 19(2): The discharge of contaminants associated with the conversion of land on a farm to dairy farm land	Discretionary activity

2.3.1 As the applications are bundled, the overall activity status is a **discretionary activity**.

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

## 2.4 Further information request

2.4.1 No further information was requested from the applicant under Section 92(1) of the RMA.

## 2.5 Notification and Submissions

2.5.1 The application was publicly notified on 16 November 2022 on request by the applicant on lodgement.

2.5.2 Two submissions were received. These are included as Attachments 3 and 4, and are summarised as follows:

**Table 3: Summary of Submissions**

Submitter	Oppose/Support	Issues/comments	Decision Sought	Wish to be heard at hearing?
Te Ao Marama Inc. on behalf of Oraka Aparima Rūnaka	Oppose	<ul style="list-style-type: none"> <li>Risk from intensification on the mauri of the water and potential adverse effects on cultural values, rights and interests and on achieving kaitiaki responsibilities.</li> <li>Lack of meaningful engagement with mana whenua.</li> <li>Concern that the mitigation of planting forestry is not suitable, and has significant risks albeit different from dairy support. This also relates to the mitigation not being a part of the land parcel that is being intensified.</li> </ul>	Decline the application	Yes

Submitter	Oppose/ Support	Issues/comments	Decision Sought	Wish to be heard at hearing?
		<ul style="list-style-type: none"> <li>• Concerns around other mitigations and their effectiveness to provide any certainty around effects on water.</li> <li>• Cumulative effects of further dairy intensification.</li> <li>• No assessment of alternatives such as only adding extra land and no extra cows.</li> <li>• Concerns around the overall health of the Orauea catchment.</li> <li>• Unclear whether the application has assessed the hierarchy of obligations correctly under the National Policy Statement for Freshwater 2020 (NPS-FM).</li> </ul>		
Coal Action Murihiku - Jenny Campbell & Dave Kennedy	Oppose	<ul style="list-style-type: none"> <li>• Levels of nitrogen having an adverse effect on quality of groundwater</li> <li>• Levels of nitrogen, phosphorus, sediment and microbial contaminants as a result of proposed activities having adverse effects on the quality of surface water, especially with regard to this property being in the Waiau River catchment.</li> <li>• Lower catchment of Waiau River adversely affected by cumulative effects of the proposed activities.</li> <li>• Cultural aspects along with the mauri of the Waiau River being adversely affected by the proposed activities.</li> <li>• Impacts on soil structure and erosion caused by increased stock numbers.</li> <li>• Proposed planting of <i>Pinus radiata</i> with all its associated issues around impacts on ground water, increase in soil acidity and wilding issues across adjacent farmland.</li> <li>• It will be years before new plantings of recommended native vegetation species, are established.</li> </ul>	Decline the application	Yes

## 2.6 Section 99 pre-hearing meeting

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

### 3. Assessment

#### 3.1 Statutory Considerations

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

- (1) *When considering an application for a resource consent and any submission received, the consent authority must, subject to Part 2, have regard to:*
- (a) *any actual and potential effects on the environment of allowing the activity; and*
  - (ab) *any measure proposed or agreed to by the applicant for the purpose of ensuring positive effects on the environment to offset or compensate for any adverse effects on the environment that will or may result from allowing the activity; and*
  - (b) *any relevant provisions of:*
    - (i) *a national environmental standard;*
    - (ii) *other regulations;*
    - (iii) *a national policy statement;*
    - (iv) *a New Zealand coastal policy statement;*
    - (v) *a regional policy statement 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 effects 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 receiving environment

3.2.1 The existing Fawna dairy farm (excluding the proposed additional 165.9 ha block) is an operational dairy farm located at 1620 Ohai Clifden Highway. The farm has a total farm area of 370.9 ha (effective – 365 ha). The dairy shed is accessed from Scott Gap Feldwick Road, near Feldwick. Currently, the applicant holds discharge permit AUTH-20146434-01-V2 and water permit AUTH-20202016 that are due to expire on 23 May 2024, and 20 April 2030 respectively.

The discharge permit authorises the discharge of dairy shed effluent from 900 cows onto 248.4 ha via travelling irrigator. The water permit authorises the abstraction and use of 140,000 L/day of groundwater for stock drinking water and the dairy operation.

- 3.2.2 Effluent collected at the dairy shed is gravity fed to a twin concrete lined weeping wall before it enters an existing effluent storage pond that is synthetically lined with a leak detection system, and was constructed with a resource consent (AUTH-20146434-03). The pond is approximately 47.8m x 47.5m x 3.36m deep, with a storage capacity of 4,590 m<sup>3</sup>, and the ongoing use and maintenance of the pond is permitted under Rule 32B of the pSWLP. Intensive winter grazing is also currently occurring on the farm over an area of 20 ha as permitted under the relevant rules in the pSWLP and the NES-F.
- 3.2.3 The applicant is proposing to increase the consented area available for effluent discharge by approximately 23 ha. This new area has been ground-truthed to be less than 7 degrees in slope, using 5m contours derived from topographical survey completed by IFS Growth despite the area being classified Category C under the RWP.
- 3.2.4 As summarised above in section 2.2.2, the applicant is in the process of purchasing an additional 165.9 ha block of land from IFS Growth Limited, which is proposed to be incorporated into the applicant’s existing dairy farm. The additional block forms part of an adjacent larger 454.6 ha farm that is currently being operated as a dairy support, sheep, and beef trading property. Once the additional block 165.9 ha block has been incorporated the balance land of 288.7 ha is to be planted in forestry (Pinus radiata) by IFS Growth Limited, as illustrated in Figure 2 below. Among other mitigation measures, the 288.7 ha forestry block is proposed as a contaminant loss offset for the proposed dairy expansion, and the applicant proposes to not commence expanded dairy activities on the new block until the 288.7 ha block has been planted in trees. The proposed additional 165.9 ha block includes 24 ha of QE2 covenant which would be excluded from dairy grazing activities.

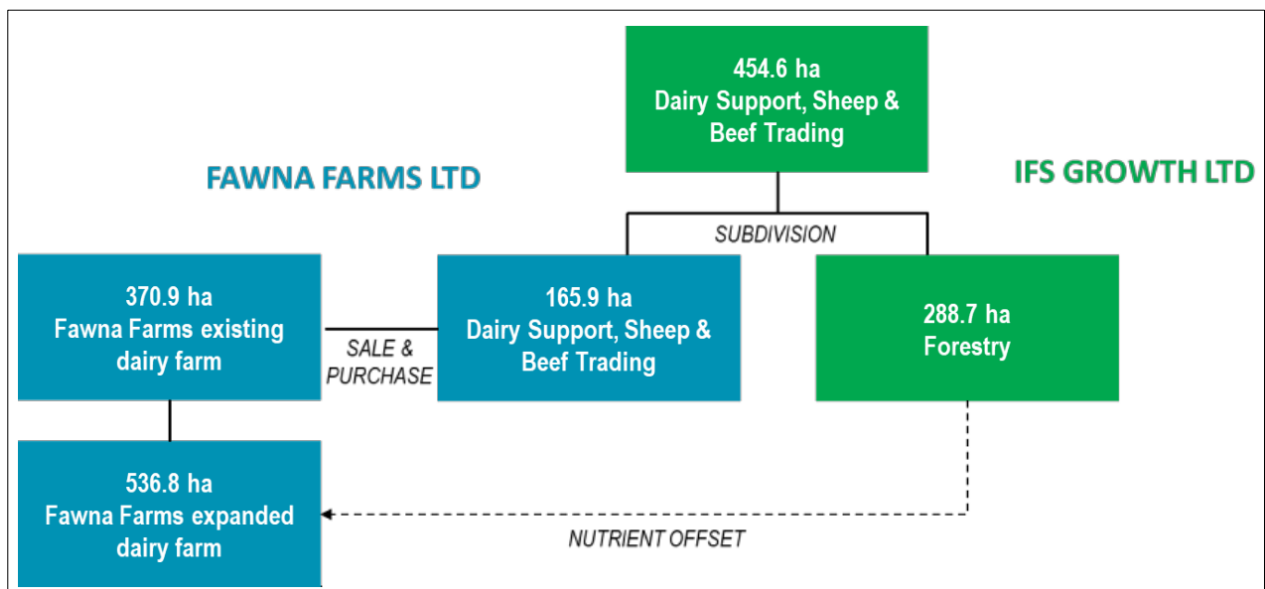


Figure 2: Proposed subdivision of land with establishment of forestry block and expanded dairy farm (p.3 of application)



3.2.5 The surrounding land uses around the proposed expanded farm (the application site) include other dairy farming activities, beef and sheep grazing activities, rural dwellings and forestry activities. The Department of Conservation (DOC) also administers two blocks of indigenous forest area along the eastern boundary of the application site with a total of approximately 766 hectares. Matariki Forests also undertakes existing plantation forestry activities to the east of the block that is to be planted in forestry by IFS Growth Limited.

3.2.6 There are a number of surface waterways running through the application site. The Orauea River runs through the north western corner of the site, whereas the Grass Burn and three of its tributaries run east to west along the northern half of the site. Gap Creek and two of its tributaries run east to west along the southern half of the site.

3.2.7 Soils and Physiographic Zones within the proposed expanded farm are detailed in Table 4 below.

**Table 4: Soil and Physiographic Zones within the Property**

Soils	Soil Type	Vulnerability Factors		
		Structural Compaction	Nutrient Leaching	Waterlogging
	Ohai	Slight	Slight	Severe
	Aparima + Lyoncross	Moderate	Moderate	Moderate
	Lyoncross	Moderate	Moderate	Slight
<b>Physiographic Zones</b>	Gleyed – Overland Flow (26%) Gleyed – No variant (24%) Oxidising – Artificial Drainage (20%) Bedrock/Hill Country (19%) Oxidising – No variant (8%)			

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

3.2.9 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.

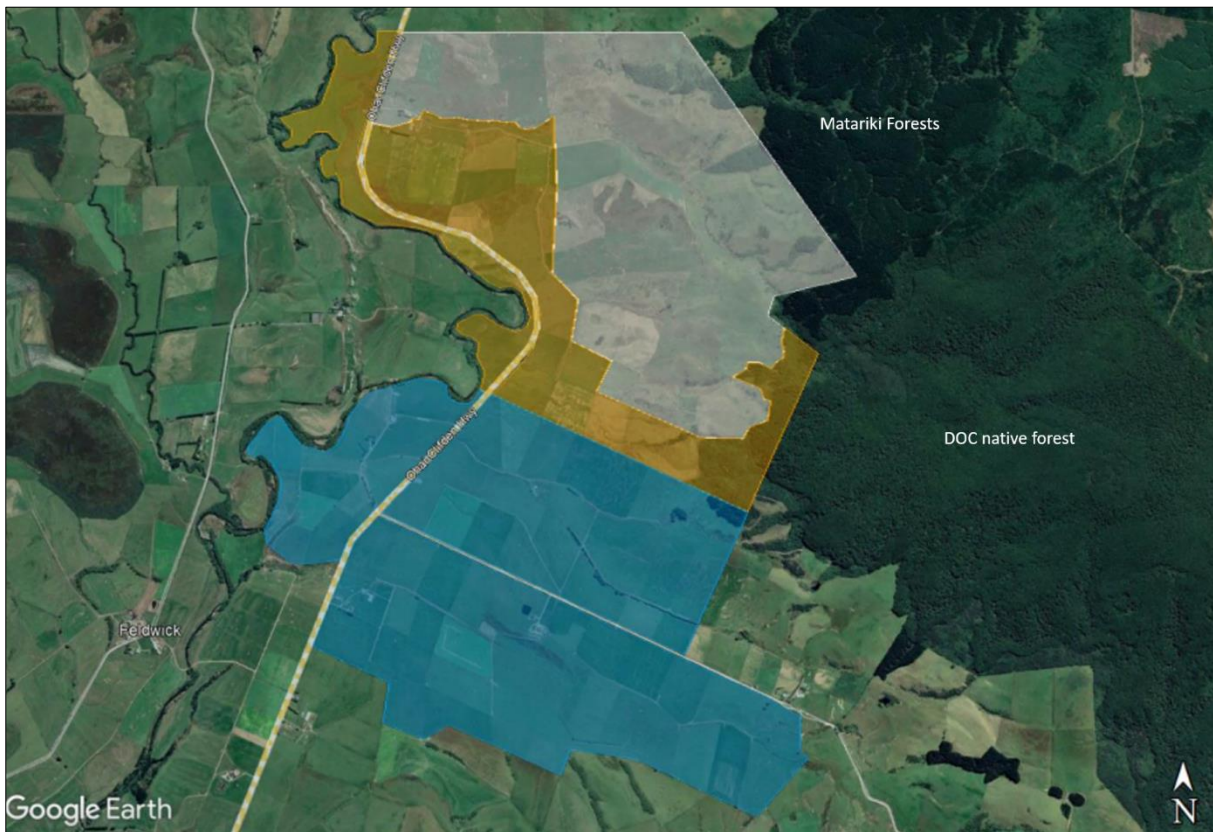
3.2.10 In the Oxidising physiographic zone, the main risk is to groundwater due to contaminant movement via deep drainage. The soils in this zone may accumulate nitrogen during the drier months and then leach into the groundwater during the wetter months.

3.2.11 *Groundwater quality* – There has been no past groundwater quality monitoring at the site. The applicant has provided some information on groundwater quality within the wider area, which was based on six bores with water quality data within a 5 km radius of one of the applicant’s bores (E44/0349), none of which are located on the application site. According to the applicant the results of groundwater monitoring of these bores suggests that TON (nitrite-nitrogen + nitrate-nitrogen) are well below the drinking water limit of 11.4 mg/L for nitrate-nitrogen. However, due to the topography, and the distances between the applicant’s property and the

locations of the bores, the results are unlikely to accurately reflect groundwater quality at the site.

3.2.12 *Surface water quality* – The nearest State of the Environment (SOE) monitoring site to the property is Orauea River at Orawia, approximately 8 km south of the application site. LAWA.org.nz<sup>1</sup> shows that the site is Attribute Band E for *E.coli* under Appendix 2A of the National Policy Statement for Freshwater Management, which is the lowest quality band and indicates elevated health risk for contact recreation. However, for Ammoniacal Nitrogen, Nitrate Nitrogen, and Dissolved Reactive Phosphorus concentrations, the site is in Attribute Band B. The B band indicates that the parameters are having some adverse effect, but water quality is above national bottom lines.

The LAWA site also shows the five-year median concentrations for the parameters listed. For example, the five-year median concentration Ammoniacal Nitrogen is 0.005 mg/l, for Nitrate Nitrogen it is 0.55 mg/l, and for Dissolved Reactive Phosphorus it is 0.009 mg/l. These figures may be helpful when considering the proposal against Regulation 24(1)(b) of the NES-Freshwater.



**Figure 3: Currently owned by Fawna Farms (Blue) and IFS Growth (white and orange). It is proposed to incorporate the orange area into the Fawna Farms property and the white area will be converted into forestry by IFS Growth (p.4 AgriAce Consulting Limited Overseer Farm System Modelling).**

<sup>1</sup> <https://www.lawa.org.nz/explore-data/southland-region/river-quality/waiiau-river/orauea-river-at-orawia-pukemaori-road/>

### 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))

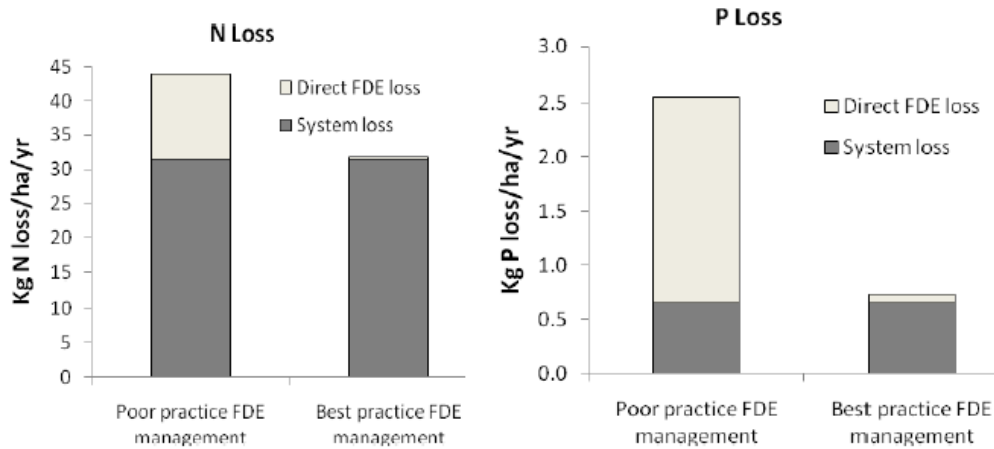
##### 3.3.2.1 Water Quality

###### Discharge

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

- storage of effluent in the sufficiently sized effluent pond (total pond volume = 4,590 m<sup>3</sup> and DESC 90<sup>th</sup> percentile requirement = 882 m<sup>3</sup>) when conditions are not suitable for discharge;
- the pond was constructed with a resource consent (AUTH-20146434-03), is synthetically lined and has a leak detection system;
- adhering to buffer distances from surface waterways and bores;
- avoiding irrigating over known tile drains;
- application of effluent at low rates and depths that are suitable to the soil and slope conditions; and
- use of a slurry tanker and umbilical system as required.

The following<sup>2</sup> demonstrates that the method of discharge will minimise direct losses of contaminants to water:



Direct drainage losses of FDE under deferred irrigation and compared for a one off poor FDE application. Direct losses of FDE are presented on top dairy land use loss of N and P (not derived directly from FDE application (Houlbrooke et al. 2008a, Houlbrooke et al. 2004).

The guideline derived from the 1999 SoilWork Limited report on farm effluent disposal in Southland, is that a discharge area of 4 hectares per 100 cows will limit nitrogen loading to 150 kg/ha/year. For 1,200 cows, that means an area of at least 48 hectares. Therefore, spreading the effluent over the 271 ha discharge area will achieve an average nitrogen loading of 27 kg/ha/year. That should be well below nitrogen requirements to maintain soil fertility, so the effluent discharge will have the effect of offsetting fertiliser use, rather than adding to it. That, in turn, should mean that the loading from the nutrients in the effluent will not increase nutrient losses to water either directly by overflow or bypass flow, nor indirectly as a result of nutrient loading effects.

### 3.3.2.2 Water Quantity

The applicant is proposing to increase the daily water take from 140 m<sup>3</sup>/day to 179.6 m<sup>3</sup>/day and its yearly volume from 51,100 m<sup>3</sup>/year to 52,560 m<sup>3</sup>/year. The increase in water abstraction is driven by the proposed increase in milking herd size from 900 cows to 1,200 cows. The daily take is the equivalent to 120 L/cow/day, which is the industry standard of efficient use for shed and stock water use. The proposed take will be 2 L/s when averaged over a 24 hr period, and therefore is not considered for stream depletion under the RWP or pSWLP.

The abstraction is from an aquifer outside of the named groundwater zones. Council’s Technical Specialist calculated the land surface recharge for the farm was 344,935 m<sup>3</sup> (RWP) and 241,448 m<sup>3</sup> (pSWLP), therefore the applicant is proposing to take 15% (RWP) and 22% (pSWLP) of the land surface recharge for the operation annually, which is within primary allocations limits.

<sup>2</sup> Source: “The influence of soil drainage characteristics on contaminant leakage risk associated with the land application of farm dairy effluent” (2009), D J Houlbrooke & R M Monaghan, Agresearch Ltd. Report for Environment Southland.

### **3.3.2.3 Soil Health**

The liquid effluent disposal field is proposed to increase from 248.4 ha to 271.4 ha on an area directly to the east of the existing effluent discharge area (not within the proposed additional 165.9 ha block). A total proposed disposal area of 271.4 ha provides a disposal area to stock ratio of 22.6 ha/100 cows, which is significantly greater than the recommendation of 4 ha/100 cows. The available disposal area is also greater than the minimum required in the ES Best Practice Guidelines Booklet<sup>3</sup>, which is 8 ha/100 cows. 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 facilities can cause problems with odour, however, the closest dwelling on another property is located over 1,340 m from the effluent storage pond. Additionally, all facilities are more than 455 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.

### **3.3.2.5 Waiau River**

There are a number of surface waterways running through the application site that joins the Orauea River which also runs through the north western corner of the site. The Orauea River eventually joins the Waiau River approximately 21 km downstream before it meets the sea at Te Wae Wae Bay. The Waiau River is a Statutory Acknowledgement Area under under Schedule 69 of the Ngāi Tahu Claims Settlement Act 1998, due to its cultural significance to Ngāi Tahu. Te Wae Wae Bay also has high cultural significance with the presence of a nohoanga site on the left bank of the Waiau River mouth.

I acknowledge the concerns that were raised by the submitters around the potential cultural aspects along with the mauri of both the Orauea River and the Waiau River. I do note however, I am not a suitably qualified person with regard to the scale of potential effects on the mauri of waterbodies and the submitters' desire to be heard at the hearing.

### **3.3.2.6 Land Use – Expanded dairy farm**

The most significant aspect of the application relates to the proposed expanded dairy activities, which would comprise of the incorporation of an additional 165.9 ha block of land into the applicant's existing dairy farm, and the increase of current cow numbers from 900 cows to 1,200 cows.

The additional block forms part of an adjacent larger 454.6 ha farm that is currently being operated as a dairy support, sheep, and beef trading property. Once the additional 165.9 ha block has been incorporated the balance 288.7 ha of steeper contour land would be retired from pastoral farming, and would be planted in forestry by the separate entity, IFS Growth Limited, as a contaminant loss offset for the proposed dairy expansion. The applicant also considers that

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<sup>3</sup> Farm Dairy Effluent, Best Practice Guidelines (2007), Environment Southland

the proposed incorporation of the additional 165.9 ha block will enable the farm to become self-contained for wintering, and would not have to rely on third party contracts to winter stock elsewhere in the catchment or region.

The proposed contaminant loss offset above forms part of a suite of measures selected by the applicant to mitigate the potential nutrient losses of the proposed expanded dairy activities. Each mitigation has a varying degree of effectiveness in terms of nitrogen, phosphorus, microbes (e.g. *E. coli*) and sediment loss. The mitigation measures have been selected based on specific characteristics of the physiographic zones and key contaminant pathways present on-farm, which was identified as overland flow and artificial drainage over the majority of the proposed farm area.

To illustrate the effectiveness of the proposed mitigations the applicant has provided nutrient budgets of the current and proposed scenarios as required by Part B Section 4 of Appendix N in the proposed Southland Water and Land plan using the Overseer Software. The nutrient budgets have been created by Mo Topham, who is a Certified Nutrient Management Advisor. Council commissioned Nicky Watt under S92(2), who is a Certified Nutrient Management Advisor, to review the nutrient budgets for a “sensitivity check”. Ms Watt has confirmed that the figures that have been used in the budgets are appropriate and that the Overseer Best Practice Data Input Standards have been followed (Attachment 2).

A summary of the proposed mitigations is provided below:

*Proposed mitigations*

- A reduction in grazed area due to conversion to forestry.
- Reduction in fertiliser applied on winter crops.
- Decrease in phosphorus fertiliser use.
- Overall reduction in stocking capacity as measured by RSU across the entire landholding.
- Reduction in RSU per hectare on the original Fawna Farms dairy area.
- Increase in effluent disposal area.
- Removal of sheep and beef and third-party dairy grazing operation.
- Decrease in imported feed.

Other proposed mitigations not recognised in the Overseer model:

- a 10 m buffer from all waterways to winter forage crops (grazed 1 May to 30 September), where the buffer will be uncultivated and retained in pasture;
- planting of 5.5 ha area with native plants between dairy shed and Gap Creek;
- buffers applied in new forestry block between existing vegetation, and waterways.

Table 5 below shows a comparison between the nutrient losses from the current land use on the Fawna dairy farm and the IFS Growth Limited mixed enterprise property vs. the proposed land use on the Fawna Farms dairy farm with the additional 165.9 ha block incorporated into dairy farm, and the adjacent block (IFS Growth forestry block of 288.7 ha) planted in forestry.

**Table 5: Nutrient losses for current land use vs proposed land use**

	<b>Total Current</b>	<b>Total Proposed</b>	<b>Estimated change</b>
Area (ha)	825.5	825.5	
Total Farm N Loss (kg)	31,706	29,565	Reduction of 2141 kgN 6.8% decrease
N Loss/ha (kgN/ha/yr)	38	36	
Total Farm P Loss (kg)	1,069	648	Reduction of 421 kgP 39.4% decrease
P loss/ha (kgP/ha/yr)	1.3	0.8	
Total Revised Stock Units (RSU)	14,671	12,598	Reduction of 2,073 RSU 14.1% decrease

Overall, the nutrient budgets predict a 6.8% reduction in nitrogen and 39.4% reduction in phosphorus for the proposed expanded dairy activities on the application site and IFS forestry block in comparison to the year ending 2020 land use. The nutrient budgets also predict a reduction in RSU of 14.1% from 14,671 to 12,598.

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. The most crucial mitigations proposed by the applicant are outlined below:

- a 14.1% reduction in RSU and a decrease in cows/ha from 2.5 cows/ha to 2.4 cows/ha;
- the retirement and conversion of the steep hill country to plantation forestry;
- the removal of sheep and beef and third-party dairy grazing operation;
- an increase in effluent disposal area by 23 ha;
- the planting of a 5.5 ha area with native plants between the dairy shed and Gap Creek.

In my opinion the proposed mitigation measures as demonstrated by the nutrient modelling undertaken will result in significantly less phosphorus, and some nitrogen losses to water bodies on a catchment scale. 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 microbial contaminants. 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.

Overall, I consider that the applicant has demonstrated that the proposed expanded dairy activities in conjunction with the adjacent block (IFS Growth Limited forestry block of 288.7 ha) planted in forestry will result in significantly less phosphorus, sediment and microbiological contaminants and some nitrogen losses, which in my opinion will contribute to improving the quality of groundwater and surface water at the catchment scale. I also consider that there is

potential for the further mitigations put forward by the applicant that are not fully recognised in Overseer to provide additional reductions in contaminant losses to water beyond the nutrient modelling predictions.

However, I do not consider that the applicant has provided sufficient clarity around the mechanisms proposed to tie the application site and the 288.7 ha IFS Growth Limited forestry block together to ensure the long term off-set with plantation forestry is sustainable. This is significant as the proposed mitigations outlined above rely on the linkage between the two properties in the long-term, and I have concerns about the applicant's ability to exercise control over the long-term activities on the proposed forestry block, which will be owned and managed by IFS Growth Limited as a separate commercial entity. Therefore, while acknowledging the potential effectiveness of the proposed off-set and other mitigations, I am unable to be completely satisfied that the proposal will be sustainable to maintain or contribute to improving water quality. It is noted that this potential concern was flagged clearly to the applicant and its consultant in a site visit prior to the lodgement of the application.

### **3.3.3 Effects Conclusion**

- 3.3.3.1 The applicant has demonstrated that there will be sufficient storage available in the effluent pond when it is not suitable to discharge effluent to land. The existing pond was constructed with a resource consent (AUTH-20146434-03), is synthetically lined and has a leak detection system. The effluent discharge area is proposed to increase by 23 ha, which will accommodate the extra effluent from milking the additional cows. Effluent can be discharged at low rates and depths, which is consistent with the key policies in avoiding and mitigating effects on water quality. The proposed increase of the liquid effluent disposal field by 23 ha will also provide a disposal area to stock ratio that is significantly greater than Council's best practice guidelines.
- 3.3.3.2 The proposed water abstraction volume is considered to be within the industry standard of efficient use for shed and stock water use, which is consistent with key water quantity policies. The proposed take will also be within primary allocations limits under both the RWP and the pSWLP.
- 3.3.3.3 In my opinion, the applicant has demonstrated that the proposed expanded dairy activities on the application site in conjunction with the adjacent block planted in forestry will result in significantly less phosphorus, sediment and microbiological contaminants and some nitrogen losses, which will contribute to improving the quality of groundwater and surface water at the catchment scale. I also consider that there is potential for the further mitigations put forward by the applicant that are not fully recognised in Overseer to provide additional reductions in contaminant loss to water beyond the nutrient modelling predictions. However, as outlined above I do not consider that the application has provided sufficient clarity around the mechanisms proposed to tie the application site and the 288.7 ha IFS Growth forestry block together to ensure the long-term off-set with plantation forestry is sustainable.
- 3.3.3.4 In particular, the applicant has proposed a condition that would provide that the expanded dairy activities will not occur until the 288.7 ha forestry block is retired from pastoral grazing and planted in trees. While that condition prevents the expanded dairy activities commencing until the forestry area is planted, it does not address what happens if the forestry block ceases to be used for forestry in the future. The Overseer model and proposed mitigations assume that forestry block will remain, but there is no certainty that will occur. Greater certainty could be provided through conditions requiring the applicant to respond to any changes on the forestry block (for example, by reducing stock numbers if the forestry activity changes). I am



not in a position to propose such a condition as I do not know what changes could be made to the applicant's farming system in response to changes on the forestry block.

3.3.3.5 I also consider that cultural and spiritual values of local rūnanga will be affected by the proposal as outlined in the submission from Te Ao Marama Inc.

### **3.3.4 Consideration of Alternatives**

3.3.5.1 The applicant has provided an assessment of alternatives for the proposed discharge of farm dairy effluent (FDE) only as it was considered that none of the activities described in the application would result in significant adverse effects on the environment. No other alternatives were considered in the application.

3.3.5.2 The applicant has indicated that deferred irrigation methods will be utilised on the property to ensure that effluent is only applied when conditions are suitable, and that there are no other practicable environmentally acceptable alternatives to applying FDE to land.

3.3.5.3 The applicant also considered that discharging directly to water would be unsuitable, and would almost certainly be more detrimental to the receiving environment than discharging to land.

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

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

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

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

### **3.4.4 Regional Water Plan (2010)**

The proposed conversion of land to dairy farming is not regulated in the Regional Water Plan. The plan does include a rule on conversion to new dairy farming, but it does not apply in this instance<sup>4</sup>, as I understand that the applicant will not require an additional dairy shed.

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<sup>4</sup> Means land used for farming dairy cattle that is converted for that purpose after 14 April 2012, but excludes:

- any winter grazing that does not occur on the land that is converted;
- any increase in the area or intensity of an existing dairy farm that is undertaken without any additional dairy shed.

Therefore the following objectives and policies in the Regional Water Plan for Southland are of relevance to effluent discharge and the water take, and are not related to the use of land:

### **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 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 25*              *To avoid, remedy or mitigate the adverse effects arising from point source and non-point source discharges so that there is no deterioration in groundwater quality after reasonable mixing, unless it is consistent with the promotion of the sustainable management of natural and physical resources, as set out in Part 2 of the Resource Management Act 1991, to do so.*

### **Water Quantity**

- Policy 21*              *To ensure that the rate of abstraction and abstraction volumes specified on water permits to take and use water are no more than reasonable for the intended end use.*
- Policy 22*              *Require, where appropriate, the installation of water measuring devices on all new permits to take and use water.*
- Policy 23*              *Impose a condition enabling the review of consent conditions in accordance with Sections 128 and 129 of the Resource Management Act 1991 on all new permits to take and use water*
- Policy 28*              *To manage groundwater abstraction to avoid significant adverse effects on:*
- long-term aquifer storage volumes*
  - existing water users*
  - surface water flows and aquatic ecosystems and habitats*
  - groundwater quality*

*Policy 29                    Manage the stream depletion effect of any groundwater abstraction with a rate of take exceeding 2 litres per second.....*

*Policy 30                    Use a staged management approach to allocate groundwater for abstraction in Southland to allow the knowledge gained by the progressive development of the region’s groundwater resources to be built into its future management and recognise and assess the different characteristics of aquifer types.*

**Land and Soils**

*Objective 9A                To manage discharges onto or into land so that the quality and structure of soil resources are maintained.*

*Policy 31A                    Match the level of management that is required for discharges of contaminants onto or into land to the level of environmental risk posed by the following risk factors:*

- (a)    nature and quantity of contaminants in the discharge*
- (b)    sloping land*
- (c)    soils with artificial drainage or coarse structures*
- (d)    soils with impeded drainage or low infiltration rates*
- (e)    well drained soils*
- (f)    climate*
- (g)    proximity to groundwater*
- (h)    proximity to surface water*
- (i)    soil’s current physical, chemical and biological characteristics and its potential to leach nutrients*
- (j)    natural hazards (for example, flooding and erosion).*

*Policy 31C                    Manage discharges of contaminants onto or into land to avoid, remedy or mitigate adverse effects, including on:*

- (a)    soil quality;*
- (b)    amenity values;*
- (c)    habitats, ecosystems and indigenous biological diversity;*
- (d)    historic heritage, cultural and traditional values;*
- (e)    natural character;*
- (f)    outstanding natural features.*

*Policy 31D                    Encourage the beneficial reuse of materials where this is appropriate, and promote discharges of these materials onto or into land to maximise the potential reuse of the nutrients and water contained in the discharge.*

**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**

While all the above policies are of relevance, Policy 28 is the main policy for the water take, and Policies 31D, 41 and 42 are the key policies for the effluent discharge to land.

The discharge is to land rather than water, and is expected to appropriately mitigate any potential adverse effects on water quality through the provision of low rate discharge, buffers to surface waterbodies and sufficient effluent storage. The discharge will include conditions relating to application rates and buffer distances to mitigate adverse effects on the environment.

In terms of Policy 29, the proposed water abstraction will not exceed 2 L/s as a daily average, so is not subject to stream depletion considerations under the policy. The applicant is proposing to take 15% (RWP) and 22% (pSWLP) of the land surface recharge for the operation annually, which is within primary allocations limits. The volume of water the applicant is seeking is deemed an efficient use of water at 120 L/cow/day. 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 Papatipua 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 Tauira, and the views of Te Rūnanga o Ngāi Tahu and Te Ao Marama Inc. have been taken into account in assessing the application. The applicant has indicated that they have discussed the application with Te Ao Marama Inc. prior to submitting the application, and identified Te Ao Marama Inc. as an affected party when the application was publicly notified. It is noted in this context that Te Ao Marama Inc. 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 Oxidising 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 deep drainage, and overland flow and artificial drainage where relevant;*
  - 2. having particular regard to adverse effects on water quality from contaminants transported via deep drainage, and overland flow and artificial drainage where relevant 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 farming.

Policy 10(3) is critical to the proposed conversion of land to dairy farming, and the associated increase in scale of the dairy operation. The mitigations proposed by the applicant will target both the overland flow and artificial drainage contaminant pathways, such as the retirement and conversion of the steep hill country to plantation forestry, removal of sheep and beef and third-party dairy grazing operations, reductions in RSU and a decrease in cows/ha, increasing the effluent disposal area and protecting Critical Source Areas (CSAs). Furthermore, consent conditions will require the applicant to reduce Olsen P to agronomic optimum and reduce synthetic nitrogen fertiliser to below the NES-F cap of 190 kg/ha/year, which both target the contaminant pathways mentioned in Policies 6 and 10 above. However, the application includes a mitigation of a "Reduction in fertiliser applied on winter crops" without providing a specific consent conditions restricting the application of fertiliser to winter crop.

## **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 8*      *(a) The quality of groundwater that meets both the Drinking Water Standards for New Zealand 2005 (revised 2008) and any freshwater objectives, including for connected surface water bodies, established under Freshwater Management Unit processes is maintained; and*
- (b) The quality of groundwater that does not meet Objective 8(a) because of the effects of land use or discharge activities is progressively improved so that:*
    - (1) groundwater (excluding aquifers where the ambient water quality is naturally less than the Drinking Water Standards for New Zealand 2005 (revised 2008)) meets the Drinking Water Standards for New Zealand 2005 (revised 2008); and*
    - (2) groundwater meets any freshwater objectives and freshwater quality limits established under Freshwater Management Unit processes.*
- Policy 13*      *1. Recognise that the use and development of Southland’s land and water resources, including for primary production, enables people and communities to provide for their social, economic and cultural wellbeing.*
- 2. Manage land use activities and discharges (point source and non-point source) to enable the achievement of Policies 15A, 15B and 15C.*
- Policy 14*      *Prefer discharges of contaminants to land over discharges of contaminants to water, unless adverse effects associated with a discharge to land are greater than a discharge to water. Particular regard shall be given to any adverse effects on cultural values associated with a discharge to water*
- Policy 15B*      *Where existing water quality does not meet the Appendix E Water Quality Standards or bed sediments do not meet the Appendix C ANZECC sediment guidelines, improve water quality including by:*
- 1. avoiding where practicable and otherwise remedying or mitigating any adverse effects of new discharges on water quality or sediment quality that would exacerbate the exceedance of those standards or sediment guidelines beyond the zone of reasonable mixing; and*
  - 2. requiring any application for replacement of an expiring discharge permit to demonstrate how and by when adverse effects will be avoided where practicable and otherwise remedied or mitigated, so that beyond the zone of reasonable mixing water quality will be improved to assist with meeting those standards or sediment guidelines.*
- Policy 16*      *1. Minimising the adverse environmental effects (including on the quality of water in rivers, coastal lakes, lagoons, tidal estuaries, salt marshes and coastal wetlands, and groundwater) from farming activities by:*
- (a) strongly discouraging the establishment of new dairy farming or new intensive winter grazing activities in close proximity to*

- Regionally Significant Wetlands and Sensitive Waterbodies identified in Appendix A;*
- (b) ensuring that, in the interim period prior to the development of freshwater objectives under Freshwater Management Unit processes, applications to establish new, or further intensify existing, dairy farming of cows or intensive winter grazing activities will generally not be granted where:
    - i) the adverse effects, including cumulatively, on the quality of groundwater, or water in lakes, rivers, artificial or modified water courses, tidal estuaries, salt marshes and wetlands cannot be avoided or fully mitigated; or*
    - ii) existing water quality is already degraded to the point of being over-allocated; or*
    - iii) water quality does not meet the Appendix E Water Quality Standards or bed sediments do not meet Appendix C ANZECC sediment guidelines; and**
  - (c) .....*
- 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 application site is not located within close proximity of any Regionally Significant Wetlands or Sensitive Waterbodies. The applicant's nutrient budgets show an overall reduction in contaminants when the proposed scenario is compared to the current scenario. The applicant has proposed mitigations in order to avoid or mitigate any adverse effects on water quality such as the retirement and conversion of the steep hill country to plantation forestry, removal of sheep and beef and third-party dairy grazing operations, reductions in RSU and a decrease in cows/ha, increasing the effluent disposal area and protecting CSAs.

The landholding also has an up-to-date Farm Environmental Management Plan, which was prepared in accordance with Appendix N of the Southland Water and Land Plan (Decisions Version). The effluent storage facility is appropriately located, designed and constructed under a resource consent with a synthetic liner and leak detection system and is of appropriate standard.

Provided the applicant can satisfy Council that the application site and the 288.7 ha IFS Growth forestry block can be tied together through an appropriate mechanism to ensure the long term off-set of the proposed expanded dairy activities with plantation forestry is sustainable, I consider the proposal would not be inconsistent with Objective 6 and Policies 13, 14, 15B and 16.

Policy 17 is relevant to the agricultural effluent discharge. I consider that the proposal is consistent with the policy.

### **Water Quantity**

- Objective 11      The amount of water abstracted is shown to be reasonable for its intended use and water is allocated and used efficiently.*
- Objective 12      Groundwater quantity is sustainably managed, including safeguarding the life-supporting capacity, ecosystem processes and indigenous species of surface water bodies where their flow is, at least in part, derived from groundwater.*
- Objective 13      Provided that:*
- (a) the quantity, quality and structure of soil resources are not irreversibly degraded through land use activities or discharges to land; and*
  - (b) the health of people and communities is safeguarded from the adverse effects of discharges of contaminants to land and water; and*
  - (c) ecosystems (including indigenous biological diversity and integrity of habitats), are safeguarded, then land and soils may be used and developed to enable the economic, social and cultural wellbeing of the region.*

*Policy 20*

*Manage the taking, abstraction, use, damming or diversion of surface water and groundwater so as to:*

- 1A. recognise that the use and development of Southland’s land and water resources, including for primary production, can have positive effects including enabling people and communities to provide for their social, economic and cultural wellbeing;*
- 1. avoid, remedy or mitigate adverse effects from the use and development of surface water resources on:*
  - (a) the quality and quantity of aquatic habitat, including the life supporting capacity and ecosystem health and processes of water bodies;*
  - (b) natural character values, natural features, and amenity, aesthetic and landscape values;*
  - (c) areas of significant indigenous vegetation and significant habitats of indigenous fauna;*
  - (d) recreational values;*
  - (e) the spiritual and cultural values and beliefs of tangata whenua;*
  - (f) water quality, including temperature and oxygen content;*
  - (g) the reliability of supply for lawful existing surface water users, including those with existing, but not yet implemented, resource consents;*
  - (h) groundwater quality and quantity; and*
  - (j) mātaítai, taiāpure and nohoanga;*
- 2. avoid, remedy or mitigate significant adverse effects from the use and development of groundwater resources on:*
  - (a) long-term aquifer storage volumes;*
  - (b) the reliability of supply for lawful existing groundwater users, including those with existing, but not yet implemented, resource consents;*
  - (c) surface water flows and levels, particularly in spring-fed streams, natural wetlands, lakes, aquatic ecosystems and habitats (including life supporting capacity and ecosystem health and processes of water bodies) and their natural character; and*
  - (d) water quality;*
- 3. ensure water is used efficiently and reasonably by requiring that the rate and volume of abstraction specified on water permits to take and use water are no more than reasonable for the intended end use following the criteria established in Appendix O and Appendix L.4.*

*Policy 21*

*Manage the allocation of surface water and groundwater by:*

- 1. determining the primary allocation for confined aquifers not identified in Appendix L.5, following the methodology established in Appendix L.6;*
- 2. determining that a water body is fully allocated when the total volume of water allocated through current resource consents and permitted activities is equal to either:*
  - (a) the maximum amount that may be allocated under the rules of this Plan, or*
  - (b) the provisions of any water conservation order;*

3. *enabling secondary allocation of surface water and groundwater subject to appropriate surface water environmental flow regimes, minimum lake and wetland water levels, minimum groundwater level cutoffs or seasonal recovery triggers, to ensure:*
  - (a) *long-term aquifer storage volumes are maintained; and*
  - (b) *the reliability of supply for existing groundwater users (including those with existing resource consents for groundwater takes that have not yet been implemented) is not adversely affected.*

**Policy 22**

*Manage the effects of surface and groundwater abstractions by:*

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

**Comment**

Policy 20(2) of the proposed plan is the main provision with regard to the proposed water permit. In this instance the water take is not in a recognised groundwater zone, so the plan provides a method of determining allocation based on rainfall recharge over the property.

The proposed water abstraction will not exceed 2 L/s, so is not expected to result in stream depletion effects. The abstraction is from an aquifer outside of the named groundwater zones. The applicant is proposing to take 15% (RWP) and 22% (pSWLP) of the land surface recharge for the operation annually, which is within primary allocations limits. The volume of water the applicant is seeking is deemed a reasonable and efficient use of water at 120 L/cow/day. The water permit will include a condition relating to the installation of a water meter and a review condition.

**Term and Consideration of Consent**

**Policy 39**

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

**Policy 39A**

*When considering the cumulative effects of land use and discharge activities within whole catchments, consider:*

1. *the integrated management of freshwater and the use and development of land including the interactions between freshwater, land and associated ecosystems (including estuaries); and*
2. *through the Freshwater Management Unit process, facilitating the collective management of nutrient losses, including through initiatives such as nutrient user groups and catchment management groups.*

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

**Comment**

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

**Conclusion to Policy Assessment – Regional Plans**

The activities have been considered against all relevant provisions of the RWP and the pSWLP. The key policies from the RWP relate to water quality, soil health and water quantity. 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. Provided the applicant can effectively demonstrate that the long term off-set of the proposed expanded dairy activities with plantation forestry is sustainable, I consider that the proposed activities would not be 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 NPSFM 2020, so may not fully give effect to it. Therefore, regard should be given to the higher order document.

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

**Tangata Whenua**

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

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

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

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

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

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

*(a) recognises and provides for:*

*(i) traditional Māori uses and practices relating to natural resources (e.g. mātaihai, kaitiakitanga, manaakitanga, matauranga, rāhui, wāhi tapu, taonga raranga);*

*(ii) the ahi kā (manawhenua) relationship of tangata whenua with and their role as kaitiaki of natural resources;*

*(iii) mahinga kai and access to areas of natural resources used for customary purposes; (iv) mauri and wairua of natural resources;*

*(v) places, sites and areas with significant spiritual or cultural historic heritage value to tangata whenua;*

*(vi) Māori environmental health and cultural wellbeing.*

*(b) recognises that only tangata whenua can identify their relationship and that of their culture and traditions with their ancestral lands, water, sites, wāhi tapu and other taonga.*

## **Water Quality**

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

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

*Policy WQUAL.1 (a) Identify values of surface water, groundwater, and water in coastal lakes, lagoons, tidal estuaries, salt marshes and coastal wetlands, and formulate freshwater objectives in accordance with the National Policy Statement for Freshwater Management 2014; and*

*(b) Manage discharges and land use activities to maintain or improve water quality to ensure freshwater objectives in freshwater management units are met.*

*Policy WQUAL.2 Maintain or improve water quality, having particular regard to the following contaminants:*

- (a) nitrogen;*
- (b) phosphorus;*
- (c) sediment;*
- (d) microbiological contaminants.*

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

*Policy WQUAL.5 Improve water quality by:*

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

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

*Policy WQUAL.8 Prefer discharges of contaminants to land over discharges of contaminants to water, where*

- (a) a discharge to land is practicable*
- (b) the adverse effects associated with a discharge to land are less than a discharge to water.*

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

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

### **Water Quantity**

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

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

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

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

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

### **Rural Land and Soils**

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

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

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

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

- Policy RURAL.2 Maintain land use change activities in rural areas of Southland, in a way that maintains or enhances rural amenity values and character.*
- Policy RURAL.4 Avoid the irreversible loss of high value soils from productive use, through inappropriate subdivision, use and development.*
- Policy RURAL.5 The effects of rural land development shall be sustainably managed and land management practices encouraged so that:*
- (a) soil properties are safeguarded;*
  - (b) soil erosion is minimised;*
  - (c) soil compaction and nutrient and sediment loss is minimised;*
  - (d) soil disturbance is reduced;*
  - (e) water quality is maintained or enhanced;*
  - (f) indigenous biodiversity is maintained or enhanced;*
  - (g) the mauri of water and soils is safeguarded.*

### **Comment**

Provided the applicant can effectively demonstrate that the long term off-set of the proposed expanded dairy activities with plantation forestry as proposed will be sustainable, I consider that the proposed activities will be consistent with the policies in the Regional Policy Statement. The applicant has indicated that they have discussed the application with Tangata whenua prior to submitting the application, and identified Te Ao Marama Inc as an affected party when the application was publicly notified. It is also noted in this context that Te Ao Marama Inc submitted and wishes to be heard in relation to this application. Te Tangi a Taurira is considered in Section 3.9 below.

The proposed land use activity should not result in a reduction in water quality on a catchment scale as long as mitigations offered in the application, such as the retirement and conversion of the steep hill country to plantation forestry, removal of sheep and beef and third-party dairy grazing operations, reductions in RSU and a decrease in cows/ha, increasing the effluent disposal area and protecting CSAs are implemented correctly and in a timely manner.

Conditions proposed for land use consent, for the conversion of land to dairy farm land, will require the applicant to reduce its Olsen P to agronomic optimum, reduce synthetic nitrogen fertiliser use to below the NES-F cap of 190 kg/ha/year and maintain and/or reduce their modelled nutrient losses to water which should, in theory, improve water quality. However, the application includes a mitigation of a “Reduction in fertiliser applied on winter crops” without providing a specific consent conditions restricting the application of fertiliser to winter crop. Low rate irrigation and sufficiently sized effluent storage also aids in the sustainable management of high value rural soils.

The water abstraction volume sought will not result in over allocation and is calculated as 120 L/cow/day, which is considered efficient use for stock drinking and dairy shed wash down purposes.



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

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

3.6.1.1 The National Policy Statement for Freshwater Management 2020 came into force on 3 September 2020, replacing the earlier National Policy Statement for Freshwater Management 2014. The NPSFM supports improved freshwater management in New Zealand. It does this by directing regional councils to establish objectives and set limits for freshwater in their regional plans.

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

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

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

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

3.6.1.3 The six principles are:

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

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

- (a) first, the health and well-being of water bodies and freshwater ecosystems;
- (b) second, the health needs of people (such as drinking water);
- (c) third, the ability of people and communities to provide for their social, economic, and cultural well-being, now and in the future.

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

- Objective 1*      *Seeks to ensure that natural and physical resources are managed in a way that prioritises first, the health and well-being of water bodies and freshwater ecosystems, second, the health needs of people, third, the ability of people and communities to provide for their social, economic, and cultural well-being, now and in the future.*
- Policy 1*            *Freshwater is managed in a way that gives effect to Te Mana o te Wai.*
- Policy 2*            *Tangata Whenua are actively involved in freshwater management and Māori freshwater values are identified and provided for.*
- Policy 3*            *Freshwater is managed in an integrated way that considers the effects of the use and development of land on a whole-of-catchment basis, including the effects on receiving environments.*
- Policy 8*            *The significant values of outstanding water bodies are protected.*
- Policy 9*            *The habitats of indigenous freshwater species are protected.*
- Policy 10*          *The habitat of trout and salmon is protected, insofar as this is consistent with Policy 9.*
- Policy 11*          *Freshwater is allocated and used efficiently, all existing over-allocation is phased out and future over-allocation avoided.*
- Policy 12:*          *The national target for water quality improvement is achieved.*
- Policy 13:*          *The condition of water bodies and freshwater ecosystems is systematically monitored over time, and action is taken where freshwater is degraded, and to reverse deteriorating trends.*
- Policy 15*          *Communities are enabled to provide for their social, economic, and cultural well-being in a way that is consistent with the NPSFM.*

**Comment**

Provided the applicant can effectively demonstrate that the long term off-set of the proposed expanded dairy activities with plantation forestry as proposed will be sustainable, I consider that the proposed activities would be consistent with the objective and policies in the National Policy Statement for Freshwater Management. I consider that the mitigations proposed would avoid and mitigate any potential adverse effects on water quality which is consistent with Policies 1, 3, 8, 9 and 10. The volume of water the applicant is seeking will not cause over-allocation and it is deemed an efficient use of water at 120 L/cow/day, which is consistent with Policy 11.

Consent conditions will require the applicant to maintain or reduce their modelled nutrient losses to water and report the modelled nutrient losses to Council which is consistent with Policies 12 and 13. Te Ao Marama Inc. has submitted on the application and consideration of Te Tangi a Tauria and the involvement of Tangata Whenua is not considered inconsistent with

Policy 2, but I do note the concerns of Te Ao Marama Inc. and their desire to be heard at the hearing.

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

#### **3.8.1 National Environmental Standard for Freshwater Management 2020**

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

3.8.1.2 Regulation 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.”*

3.8.1.3 As the parcel of land being incorporated into the dairy farm is 165.9 ha, the proposal triggers Regulation 19, which in turn means the proposal is subject to Regulation 24. Regulation 24 sets out conditions on granting resource consents for a discretionary activity, which states they may only be granted if they will not result in an increase in contaminant loads in the catchment and concentrations of contaminants in freshwater, compared with the loads and concentrations, as at the close of 2 September 2020. It also stipulates the relevant consents must expire before 1 January 2031.

Regulation 24:

- (1) 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.

*Term of resource consent*

- (2) A resource consent granted for the discretionary activity must be for a term that ends before 1 January 2031.

Related definitions:

**freshwater** or **fresh water** means all water except coastal water and geothermal water  
**water—**

- (a) means water in all its physical forms whether flowing or not and whether over or under the ground:
- (b) includes fresh water, coastal water, and geothermal water:
- (c) does not include water in any form while in any pipe, tank, or cistern

### **Comment**

The applicant's nutrient budgets predict a 6.8% reduction in nitrogen and 39.4% reduction in phosphorus for the proposed expanded dairy activities in conjunction with the IFS forestry block in comparison to the year ending 2020 land use. The assumption is also that 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. As outlined in Section 3.3.2.1 of this report it is my opinion that the nutrient budget predictions adequately demonstrate that the proposal will contribute to improving the quality of groundwater and surface water at the catchment scale provided the applicant can effectively show that the long term off-set of the proposed expanded dairy activities with plantation forestry will be sustainable. I also consider that there is potential for the further mitigations put forward by the applicant that are not fully recognised in Overseer to provide additional reductions in contaminant losses to water beyond the nutrient modelling predictions. Thus, I consider that Regulation 24(1)(a) is satisfied.

However, Regulation 24(1)(b) also stipulates that a consent for conversion of land to dairy farm land may only be granted if the activities will not result in an increase in concentrations of contaminants in freshwater or other receiving environments, compared with the concentrations as at the close of 2 September 2020. Given that Overseer considers contaminant loads at a catchment scale, it cannot be relied on to demonstrate reductions of contaminant concentrations within the receiving environment and freshwater bodies on the application site, and particularly within the freshwater bodies on and adjacent to the proposed additional 165.9 ha block that is to be incorporated into the existing dairy farm.

Because Overseer nutrient budgets cannot be relied upon to consider nutrient concentrations within freshwater bodies on and adjacent to the proposed additional 165.9 ha block, the applicant would have to provide practical targeted mitigations based on the physiographic characteristics and topography of the proposed additional block, with an assessment that demonstrates how the nutrient concentrations under the proposed land use will be the same as, or lower than they were from the land use prior to 2 September 2020.

The wording of Regulation 24 has amended since the application was lodged (5 January 2023) to clarify that granting the consent cannot lead to either of the contaminant increases specified in Regulation 24(1)(a) and (b). I expect that the applicant will provide evidence at the hearing with regard to the application of Regulation 24(1)(b). At the time of drafting, based on the information provided by the applicant, I do not consider that it has been sufficiently demonstrated that the proposal will not result in an increase in nutrient concentrations within the freshwater bodies on and adjacent to the proposed additional block. Accordingly, I am unable to confirm that Regulation 24(1)(b), is satisfied.

That said, the commissioners could take the following factors into account when determining if they are satisfied that granting the consent will not result in an increase in concentrations of contaminants in freshwater:

- (a) the regulation encompasses effects in all water bodies that can be directly affected by the proposal, including through cumulative effects. The only exceptions would be water in pipes, tanks and cisterns. That means that the consideration is valid to groundwater beneath the property, water flowing from streams or drains through the property, and in the rivers downstream;
- (b) concentrations in water bodies will be variable over time due to seasonal influences, regardless of the proposed activity;
- (c) the attribute tables in Appendix 2A of the National Policy Statement for Freshwater Management refer to annual median and annual 95<sup>th</sup> percentiles to determine attribute bands based on concentrations;
- (d) the farm is about 8 km upstream of a State of the Environment water quality monitoring site, Orauea River at Orawia Pukemaori Road;
- (e) the regulation applies to discretionary activities in a subpart of the NES-F. The activity is not a prohibited activity.

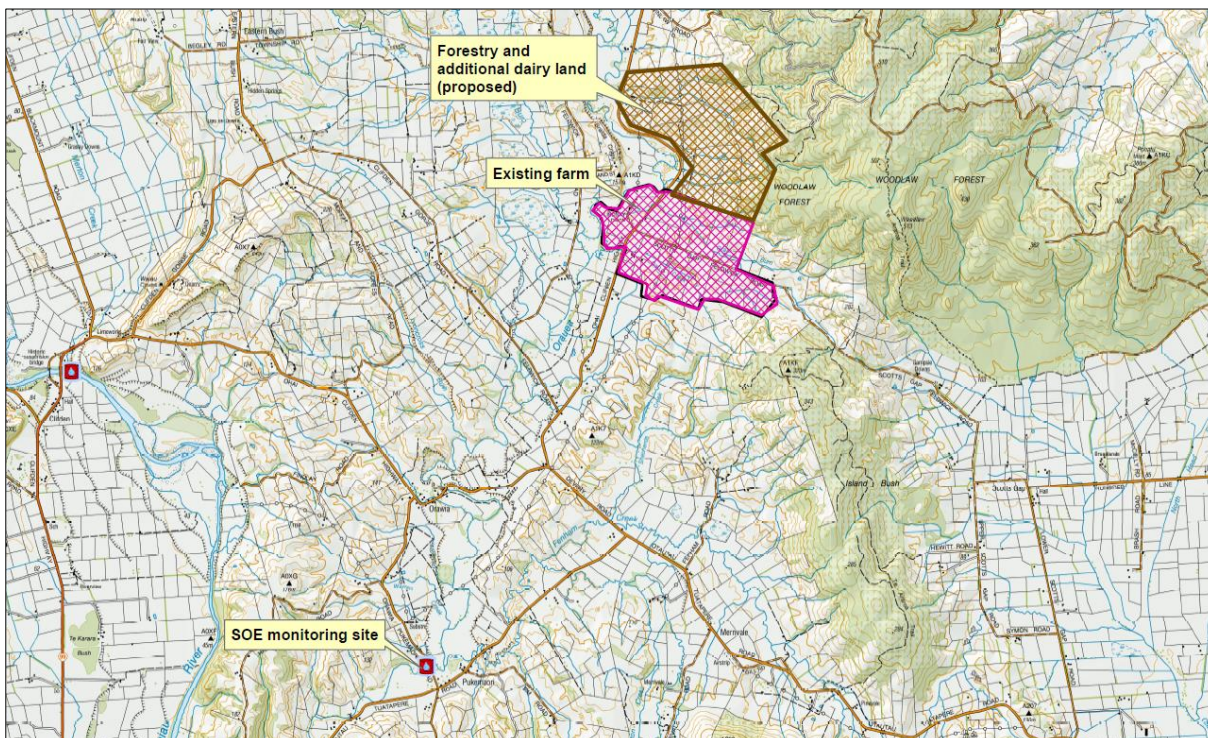


Figure 4: State of the Environment water quality monitoring site, Orauea River at Orawia Pukemaori Road

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

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

3.8.1.2 There are two registered drinking-water supply bores that are hydraulically connected to the Waiau River at Tuatapere approximately 18 km south-west of the site that provides water to more than 501 people. Given the distance from the water supply I consider that any potential effects on the water supply are likely to be negligible. The discharge is not directly to water and maintenance of buffer zones, along with other mitigation methods, will be required by consent conditions. Provided the conditions are adhered to, then the discharge is not likely to introduce or increase the concentrations of determinands at any drinking water abstraction points that would cause a breach of the standards.

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

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

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

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

### **3.9.1 Te Tangi a Tauria**

3.9.1.1 Te Tangi a Tauria 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 Tauria, which are relevant to this application, are:

#### **Farm Effluent Management (Section 3.5.1)**

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

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

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

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

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

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

*Policy 13            Appropriate buffer zones between discharge activities and waterways.*

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

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

**Water Quality (Section 3.5.13)**

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

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

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

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

**Water Quantity - Abstractions (Section 3.5.14)**

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

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

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

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

**Comment**

Ngāi Tahu Murihiku has been involved in the application as Te Ao Marama Inc. 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 expansions and land intensification. This is because Te Tangi a Taurira became operative in 2008, at a time when there were no regional rules or regulations on land use for the purpose controlling water quality effects, such as the current rules on use of land for expanded dairy farming. Therefore there was no need to policy direction in Te Tangi a Taurira on that issue at the time. That said, the policies on water quality effects are relevant.

The main discharge method of effluent is to land via low-rate pods and travelling irrigator, with other methods proposed as contingency measures, which is consistent with Farm Effluent Management Policies 4, 7, 8, 9 and water quality Policies 5 and 6. Conditions of consent relating to buffer distances, riparian planting near the dairy shed, spray drift and ponding of effluent are included in the conditions of consent which is consistent with the Farm Effluent Management Policies 11, 13, 14, 15 and water quality Policy 9.

The water take is from a bore, conditions relating to water meters and review of abstraction volume are also included in the water abstraction permit along with a consent duration of less than 25 years.

### **3.10 Section 105 matters relevant to discharge or coastal permits**

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

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

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

3.10.3 The alternatives considered by the applicant are summarised at paragraph 3.3.5 above. I have had regard to those alternative methods and receiving environments (discharge to water). I agree with the applicant that discharging directly to water would be unsuitable, and would almost certainly be more detrimental to the receiving environment than discharging to land.

### **3.11 Section 107 restriction on grant of certain discharge permits**

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

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

3.11.3 If carefully managed, the proposed effluent discharge is not expected to give rise to the effects on surface water listed in Section 107. The discharge associated with the proposed land use change will be to land, and is considered incidental and therefore not controlled by the applicant.



### **3.12 Part 2 of the Resource Management Act 1991**

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

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

3.12.3 In relation to the matters outlined in Section 5, I do not consider that the applicant has provided sufficient clarity around the mechanisms proposed to tie application site and the 288.7 ha IFS Growth forestry block together to ensure the long term off-set with plantation forestry is sustainable. I also consider that without the specific consideration of the proposal against regulation 24(1)(b) of the NES-F, or sufficient evidence to demonstrate that the proposal will not result in an increase in nutrient concentrations within the immediate freshwater bodies on and adjacent to the proposed additional 165.9 ha block, I am unable to consider if the proposal will be consistent with the purpose and the principles of the Act.

3.12.4 All of the Part 6 matters have been covered within the various Council planning instruments, of which the application is generally consistent with provided the applicant can satisfy Council that the application site and the 288.7 ha IFS Growth forestry block can be tied together through an appropriate mechanism to ensure the long term off-set of the proposed expanded dairy activities with plantation forestry is sustainable.

3.12.5 There is only one matter of national importance, as outlined in Section 6 of the Act, which needs to be recognised and provided for in the context of this application. This is the relationship of Māori and their culture and traditions with their ancestral lands, water, sites, wāhi tapu and other taonga. The proposed farm area is not part of a 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 known areas of significant indigenous vegetation and significant habitats of indigenous fauna which are protected by existing QEII Covenants;
- 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 broader Waiau catchment but is not within a Statutory Acknowledgment Area and is not part of any customary rights.

3.12.6 In relation to the considerations under Section 7, for the same reasons outlined above I am also unable to confirm if the activity would not be detrimental to the matters listed in Section 7 (a)–(j) without clarity around the mechanisms proposed to tie the application site and the 288.7 ha IFS Growth forestry block together.

3.12.7 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. Again, it should be noted Te Ao Marama Inc. has raised a number of concerns in its submission, which is to be addressed at the hearing.

3.12.8 Overall, for the reasons outlined above I am not able to conclude that the proposal will meet the relevant provisions of Part 2 of the RMA, which is the sustainable management of natural and physical resources.

## 4. Conclusion

### 4.1 Whether to grant

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

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

- I do not consider that the applicant has provided sufficient clarity around the mechanisms proposed to tie the application site and the 288.7 ha IFS Growth forestry block together to ensure the long term off-set with plantation forestry is sustainable. This is significant as the proposed mitigations outlined above rely on the linkage between the two properties in the long term. Therefore, while acknowledging the potential effectiveness of the proposed off-set and other mitigations, I am unable to be completely satisfied that the proposal will maintain or contribute to improving water quality;
- the application does not demonstrate that the requirement in regulation 24(1)(b) of the NES-F will be achieved (i.e. the proposal will not result in an increase in nutrient concentrations within any nearby water bodies on and adjacent to the proposed additional 165.9 ha block). Accordingly, I am unable to confirm that regulation 24(1)(b), which restricts Council’s ability to grant consent is satisfied. However, this matter may be able to be addressed through further targeted mitigations and/or additional assessment regarding these matters;
- given the above, I do not consider that the application achieves the objectives and policies of the relevant National Policy Statement, Regional Policy Statement, Iwi Management Plan and Regional Plans.

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.

## 4.2 Term of consent

4.2.1 The applicant has requested a consent term of 7 years due to:

- having a common expiry date for all permits being applied for;
- the financial investment involved in gaining a consent of this nature;
- the certainty (in its opinion) that the proposed mitigations and appropriate management techniques will address all potential adverse effects;
- the need to enable implementation of any revised framework established in the FMU section of the PSWLP; and
- the applicant's good compliance history for the existing resource consents.

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, and also noting the direction under Regulation 24(2) of the NES-F that any activities granted must be for a term that ends before 1 January 2031, if consent was to be granted I consider that the seven-year period requested is appropriate. 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, a review would be necessary to implement those reductions.

4.2.5 I have also considered the applicant's significant investments as required under Section 124 of the Act, as well as the generally good compliance history for the current discharge and water permits. Consequently, I would recommend that the application is granted for a term of seven years and all permits are given the common expiry date of 31 May 2030, to align with the end of the dairy milking season.

## **5. Information about this report**

### **5.1 Status and purpose of this report**

5.1.1 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 Fawna Farms 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.

5.1.2 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.

5.1.3 The purpose of the report is to assist the Hearing Commissioners in making a decision on the application.

### **5.2 About the author**

5.2.1 My name is George Gericke. 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 September 2019.

5.2.2 I hold the qualifications of Bachelor (Honours) in Environmental Management from the University of South Africa (UNISA) and Bachelor (Honours) in Communication Studies (Journalism) from the North-West University (NWU), South Africa. I am an accredited decision-maker through the Ministry for the Environment Making Good Decisions course.

5.2.3 I have been involved with the application since it was lodged and received by Council on 7 October 2022. I have also visited the site on 14 September 2022.

### **5.3 Information relied on in preparation of this report**

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

- resource consent application;
- the submissions on the application;
- Review of Overseer Nutrient Budgets commissioned under Section 92(2) of the RMA;
- 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 Taura (Iwi Management Plan) 2008.

## 5.4 Attachments

5.4.1 The following attachments form part of this report:

- Attachment 1: Application for resource consents
- Attachment 2: Irricon Resource Solutions OVERSEER Nutrient Budget Review Report on behalf of Council under Section 92(2) of the RMA
- Attachment 3: Te Ao Marama Inc submission
- Attachment 4: Jenny Campbell & Dave Kennedy submission
- Attachment 5: Draft consent conditions



George Gericke  
**Senior Consents Officer**

Approved for Release:



**Bruce Halligan**  
**Consents Manager**

**Attached:** Discharge permit AUTH-20222565-01, Water permit AUTH-20222565-02 and Land Use Consent AUTH-20222565-03

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