

BEFORE THE SOUTHLAND REGIONAL COUNCIL

In the matter of sections 88 to 115 of the Resource Management Act
1991

And

In the matter of applications for resource consents by:

FAWNA FARMS LTD

Applicant

EVIDENCE OF CHRISTINA ELYSE RAILTON

8 March 2023

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QUALIFICATIONS AND EXPERTISE

1. My full name is Dr Christina Elyse Railton, and I am a Planner and Environmental Scientist at Landpro Limited, a firm of consulting planners, scientists, surveyors, and engineers. I hold the qualifications of BSc (Hons) (Geography, University of Otago) and PhD (Hydrology, University of Otago).
2. I have been employed by Landpro since December 2017 and have undertaken a wide variety of resource management-related work for various clients, including preparing resource consent applications, providing regulatory advice, and consent management services. A significant proportion of my work relates to resource consents for dairy farms in Southland. I am currently in the process of applying to be an associate member of the New Zealand Planning Institute. Furthermore, a significant portion of my work at Landpro also includes providing expert water quantity and quality advice to rural landowners.
3. I acknowledge that I have been assisted by my colleague Dr Mike Freeman, Principal Environmental Consultant, to review parts of this evidence. This is my evidence and I take full responsibility for all the content of this document.
4. This evidence has been prepared in relation to the resource consent applications by Fawna Farms Limited to use land for dairy farming that was not occurring as of June 2016, to increase the size of the dairy platform by more than 10 hectares (ha) as compared to the 2 September 2020, to discharge contaminants associated with the use of this land for dairy post 2 September 2020, to discharge farm dairy effluent to land, to take and use groundwater for dairy operations.

Other sources of information

5. I have considered the following information:
 - (a) The application and associated assessment of environmental effects (AEE) prepared by me.
 - (b) The S42A report by Mr George Gericke approved for release by Mr Bruce Halligan.
 - (c) The Overseer modelling reports by Mo Topham, her evidence and the audit undertaken by Irricon.
 - (d) Brief of evidence from Dan Minehan from IFS Growth Limited.
 - (e) Brief of evidence from Simeon Ward, a Director of Fawna Farms Limited.

(f) Submissions from: Te Ao Marama on behalf of Oraka Aparima Rūnaka, and Jenny Campbell and Dave Kennedy on behalf of Coal Action Murihiku.

(g) Draft Forestry Right between IFS Growth Limited and Fawna Farms Limited.

CODE OF CONDUCT FOR EXPERT WITNESSES

6. I have read the Code of Conduct for Expert Witnesses within the Environment Court Practice Note 2023 and I agree to comply with that Code. This evidence is within my area of expertise, except where I state I am relying on what I have been told by another person. To the best of my knowledge, I have not omitted to consider any material facts known to me that might alter or detract from the opinions I express.

SCOPE OF EVIDENCE

7. I provide summary information on the following matters:

- Background and proposal
- Application summary
- Comment on the S42A Report and Recommendations
- Policy and Statutory Planning Analysis
- Matters raised by submitters
- Conditions
- Conclusions

BACKGROUND

8. The following is a brief overview of the proposal as submitted on 7th October 2022, noting that the full description of the proposal is detailed in the AEE. The key components of the proposal as originally lodged are as follows:

9. The application site is located at 1620 Ohai Clifden Highway, Ohai. The site comprises a 370.9 ha dairy platform owned by the Applicant (the 'existing dairy platform'), and a 454.6 ha block historically used for dairy support owned by IFS Growth Limited (a forestry management and investment company). All land that makes up this proposal is located within the Orauea River Catchment. The applicant is proposing to purchase 165.9 ha from IFS Growth Limited and use this as dairy farm land and amalgamate this into the existing dairy platform. As part of the expansion, 300 additional cows are sought for milking.

10. The existing dairy farm is flat to rolling country. The existing dairy platform has been run as a dairy farm (including winter grazing) since before 2014 and was purchased by Fawna Farms Limited in 2022.
11. The new 165.9 ha would be subdivided by IFS Growth Limited and sold to Fawna Farms Limited. The balance 288.7 ha of land would be planted in production forest.
12. Soils on the existing dairy farm are comprised of primarily Ohai, Aparima and Lyoncross. These soils are known to have various vulnerabilities as indicated in the AEE submitted in support of the application, including a moderate vulnerability to structural compaction and low-medium vulnerability to nitrogen leaching, and high vulnerability to water logging.
13. Physiographic zones on the existing dairy farm are estimated by Environment Southland to be Oxidising and Gleyed with a small component of Bedrock Hill Country. Contaminant loss to surface water via overland flow and artificial drainage and some deep drainage, are the main water quality risk transport pathways associated with these zones.
14. The Environment Southland GIS system and topographical maps show that the existing dairy platform is located within the Orauea River catchment. There are a number of tributaries of the Orauea River on the 'proposed property', which will include the existing dairy platform and new 165.9 ha block. I have included a property overview map at Appendix A.

SUMMARY OF APPLICATIONS

15. The Resource Management (National Environmental Standards for Freshwater) Regulations 2020 (referred to here as the NESF) were introduced on the 3 September 2020 and regulate activities that pose risks to the health of freshwater and freshwater ecosystems. As part of the proposal by Fawna Farms Limited, applications have been prepared seeking resource consent under these National regulations. Where applicable in the below, the acronym NESF is used to identify which applications relate to the NESF.
16. Applications have been prepared seeking resource consents to use land for a farming activity, discharge effluent to land, to abstract and use groundwater for dairy purposes. In summary, the applications sought:
 - Land Use Consent – To use land for a farming activity. The proposal seeks to increase the land area of the existing dairy platform above what existed at 3 June 2016 to include a 165.9 ha block.

- Land Use Consent (NESF) - To convert land on a farm that was not dairy farm land at the close of 2 September 2020. The proposal seeks to convert 165.9 hectares of land used for dairy support prior to 2 September 2020 to dairy farm land.
 - Discharge Permit –To discharge dairy shed effluent from 1,120 cows onto 271.4 ha of land via travelling irrigator, and slurry tanker and umbilical system both as a contingency.
 - Discharge Permit (NESF) – To discharge contaminants associated with the conversion of land on a farm to dairy farm land into or onto land, including in circumstances that may result in the contaminant (or any other contaminant emanating as a result of natural processes from the contaminant) entering water.
 - Water Permit - To abstract 179,625 L/day of groundwater. This abstraction of groundwater is for dairy shed washdown and stock drinking water for 1,200 cows and the associated dairy support stock that graze the proposed property, and in winter for cow wintering.
17. A Farm Environmental Management Plan (FEMP) was lodged with the application which contains details of Good Management Practices (GMPs) proposed by the applicant to ensure that the farm is operated in accordance with industry-accepted good management practice.

Overseer Modelling

18. Overseer (OverseerFM) modelling has been used to estimate long-term annual average nitrogen (N) and phosphorus (P) losses to water from the existing dairy platform and the IFS Growth block during 19-20 season, and the proposed dairy platform that will operate if consent is granted. OverseerFM version 6.5.0 has since been released. Mo Topham in her evidence details that the Overseer version change has not had any effect on the estimated losses of nitrogen and phosphorus. A detailed summary of OverseerFM outputs for the properties that this application relates to are detailed in Mo Topham's evidence. A detailed summary of OverseerFM inputs for the properties is included in Mo Topham's modelling report appended to my AEE.
19. The overall results are summarised in the following table.

Table 1 Summary of estimated nitrogen and phosphorus losses in the current and proposed systems under Overseer version 6.5.0.

	Fawna Farms Existing Dairy Platform 19/20	IFS Growth 19/20	19/20 Total
N loss to water(kg/yr)	17,607	14,099	31,706
N Loss/ha (kg/ha/yr)	47	31	
P loss to water (kg/yr)	401	668	1,069
P loss/ha (kg/ha/yr)	1.1	1.5	

	Fawna Farms Proposed Dairy Platform	IFS Growth Proposed Forestry	Proposed Total	Difference between 19/20 and proposed
N loss to water(kg/yr)	28,835	730	29,565	Reduction of 2,141 kg N 6.8% decrease
N Loss/ha (kg/ha/yr)	54	3		
P loss to water (kg/yr)	613	35	648	Reduction of 421 kg P 39.4% decrease
P loss/ha (kg/ha/yr)	1.1	0.1		

20. The overall modelling of the proposed farming system indicates that nitrogen losses to water are estimated to reduce by approximately 6.8 % compared to the baseline combined model. Phosphorus losses to water are estimated to reduce by approximately 39.4 % compared to the baseline combined model.
21. Irricon reviewed the OverseerFM nutrient budgets prepared by Mo Topham. Irricon determined a high level of robustness. This means that there is a very high level of confidence about the modelling results, subject to appropriate conditions that provide an assurance that the modelled farm system and mitigations would be implemented. Mo Topham has further expanded on the Irricon report in her evidence.

Discharge Permit

22. A new discharge permit is sought to replace the existing discharge permit to allow for the discharge of farm dairy effluent from 1,200 cows. It is proposed to discharge the effluent across a total area of 271.4 ha including a proposed increase of 23 ha.
23. Authorisation is sought to discharge contaminants into or onto land associated with the use of land for dairy farming, consistent with Regulation 24 of the NESF.

24. Effluent storage infrastructure at the existing dairy farm consists of twin weeping wall, and a lined effluent pond.
25. The volume of deferred storage provided on farm meets the accepted 90%ile volume estimate of the Massey University Dairy Effluent Storage Calculator (DESC), as outlined in the application for resource consent.
26. Effluent would be discharged to land via low-rate pods and a travelling irrigator, and as a contingency, a slurry tanker or umbilical system. The effluent application methods would apply effluent at a maximum rate of 10mm/hr with a 10mm depth and can be used all year round provided soil moisture deficit is adequate. The soils within the FDE disposal area appear to be classified by Map 1 of Appendix N of the Regional Water Plan as being Category A soils (artificial drainage or coarse soil structure) and Category B (impeded drainage), and Category D (well drained flat land).

Water Permit

27. A new water permit is sought to replace the existing water permit to allow the abstraction of 179,625 L/day. The abstraction rate will be no more than 2.1 L/sec.
28. Please note the application refers to a rate of take of 2 L/s, and there has been a rounding error made when reporting this. The rate of take to achieve 179,625 L/day is 2.07 l/s. This can be rounded to 2.1 l/s.
29. The water would be used for stock drinking water and shed wash down water for 1,200 cows and associated replacement stock. This will be abstracted from four bores, D45/0316, D45/0355, D45/0349, and D45/0351.

Land Use Consent for Farming

30. A land use consent is sought for the proposed farming activity which includes all farming activities located on the land.
31. The proposal is to increase the existing dairy platform area by 165.9 ha. It is proposed to increase the cow numbers by 300.

COMMENTS ON SECTION 42A REPORT

32. I have read the Section 42A Report prepared by George Gericke and approved by Bruce Halligan. The reporting officer(s) has recommended that that application should be declined. They identified a number of specific issues to be considered, these are summarised below:

- a) The consequences of the proposed activities on contaminant concentrations as at 2 September 2020, and consequential compliance with Regulation 24(1)(b) of the National Environment Standards for Freshwater; and
 - b) Whether forestry on land being owned and managed by someone else can be considered as part of the 'equation' to consider the overall effects of the proposal and the consistency with the relevant planning framework.
33. I have endeavoured to clarify and/or address the specific concerns raised as well as other relevant matters. The S42A report provides an opportunity to address the above issues through the applicant's evidence.
34. I agree with the S42A report's comments on the effects of effluent discharge on water quality, soil health and odour.
35. I note that the minimum requirements for the size of the effluent disposal area are 4 hectares per 100 cows, and the Environment Southland recommended area is at least 8 ha per 100 cows. The 271 ha discharge area equates to 23 ha per 100 cows, significantly above Environment Southland's recommended guidelines.
36. I have reviewed the drafted consent condition provided in the S42A report. I have provided a marked up version of the draft conditions with some further suggestions for the commissioner. I am satisfied through those draft conditions that the risk of adverse effects from odour and spray drift from effluent discharge on surrounding landowners and occupiers will be minimal.
37. I agree with the S42A report's comments on the effects of groundwater abstraction on water quantity. The abstraction is no more than 2.07 L/s, and therefore no significant hydraulic connection is expected. Over-allocation from the unclassified groundwater management zone would not occur.
38. I agree with the S42A report's comments that the proposal is consistent with Objective 6 and Policies 13, 14, 15B, and 16 of the Proposed Southland Water and Land Plan (2018) (referred to hereon as PSWLP). I agree that provided the applicant can effectively demonstrate the long-term offset of the proposed expanded dairy activities with plantation forestry, that the proposed activities would not be inconsistent with the PSWLP.
39. I agree with the S42A report's comments on the Waiau River. I appreciate that the officers are not suitably qualified to make conclusions on the scale of potential effects on the Mauri of waterbodies and I note that submitters had concerns on the hauora of the Waiau River. I also note that I am not suitably qualified to make conclusions on these matters. However, the applicant engaged with Te Ao Marama and sought feedback on how best to address and alleviate any concerns they may have

had prior to consent being lodged, and what was raised in their submission once this was received, as well as any additional concerns they may have had in regard to the proposal.

40. The below section of my evidence will address those outstanding matters raised above at Para. 32 (a) and (b).

Effects from the proposed expanded dairy farm activities on water quality

41. I agree with the S42A report's conclusion that the nutrient budget predictions and mitigations proposed adequately demonstrate the proposal would contribute to improving groundwater quality and surface water quality at the Orauea River catchment scale, provided an appropriate mechanism linking the two blocks can be established (see below), and that Regulation 24(1)(a) of the NESF is satisfied; I note for completeness there is no mapped Groundwater Management Zone beneath the applicants proposed property.
42. Environment Southland define¹ the local catchment as the Orauea River.
43. Regulation 24(1)(b) of the NESF stipulates:

Regulation 24: Discretionary activities: conditions on granting resource consents

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.
44. As outlined above, consent may only be granted if both 24(1) (a) and (b) can be satisfied.
45. The S42A report has noted that as OverseerFM only considered contaminant loads at a catchment scale, it cannot be relied on to demonstrate reductions of contaminant concentrations at the catchment scale.
46. Mo Topham in her evidence further expands on this. I have relied on Mo Topham's evidence.

¹ Environment Southland Beacon, 'consents' map package, and 'catchment boundaries' layer.

47. I agree with the S42A report that the NESF Amendment made on the 5 January 2023 has clarified the intent of the NESF Regulation 24 in that granting of a resource consent may only occur if both 24(1) (a) and (b) can be satisfied.
48. I understand from the S42A report, as explained at the bottom of page 36, that because this clarification has been made since the application was lodged, the applicant is now welcome through evidence to provide further assessment.
49. I note that the purpose of the amendments was to provide for clarity, and not to imply a stricter test, this relates to both the change from 'shall not grant' to 'must not grant', and the inclusion of 'either'. I therefore consider that the assessments provided with the original application satisfy the requirements of NESF Regulation 24. I have sought clarity from the Ministry for the Environment that the purpose of the 5 January 2023 amendments was to address ambiguity and clarify the policy intent.
50. However, for the avoidance of doubt, I have included here further detail on how the mitigations proposed address nutrient loads and concentrations in the catchment, with focus on contaminant concentrations.

Contaminant Concentrations

51. The dominant contaminant pathway on the proposed property is likely to be overland flow, and minimising contamination of surface water has been the primary focus of the mitigations proposed, however in recognising that consideration of Regulation 24 is relevant to all receiving environments (groundwater, surface water, and rivers downstream), groundwater has been considered also when proposing mitigations.
52. The applicant's farm is located in an unclassified groundwater zone. The groundwater TON concentration around the farm as estimated by Environment Southland (typically sourced from online GIS, Beacon) has not been modelled in this location and so I have relied on water quality data for any bore within 5km of the proposed property.
53. I disagree with the S42A conclusion that water quality data from bores within 5km of the applicant's farm are irrelevant. There is very little other information on the current state of the groundwater in this area. Using a 5km capture radius for available bore water quality data retrieves data that is similar in topography and local environmental characteristics. I agree this approach is not perfect, however it offers the best available information on current groundwater quality state in this general location.
54. The nearest State of the Environment Surface Water quality monitoring site is the Orauea River at Orawia. Table 7 of the resource consent application summarises the available water quality data for

this site. I agree with the S42A report's description of the site's water quality in relation to the National Policy Statement for Freshwater water quality attributes and those parameters below national bottom lines (e.g., *E. coli*) or above a national bottom line (e.g., ammoniacal-nitrogen, nitrate-nitrogen, and dissolved reactive phosphorus).

55. This data is useful when making an assessment against Objective 6 and Policies 13, 14, 15B, and 16 of the (PSWLP). However, as this site is some 8km south of the applicant's farm, it is useful for getting a picture of broader catchment water quality as it may relate to Regulation 24 of the NESF. Due to other sources of non-point, or point source, discharges, and/or attenuation and dilution occurring, it is not possible to quantitatively describe local (at the application site) water quality, and how the applicant's proposed mitigations address this. The application prepared by Fawna Farms Ltd sets the tone for catchment management of water quality. In taking this approach we accept that the proposed meaningful mitigation made under the proposal in isolation from other farms will only result in an extremely small improvement in long-term average water quality. This highlights the importance of catchment wide implementation in water quality mitigation measures.
56. Overtime, the quantification of these improvements will be included through the Certified Freshwater Farm Planning process.
57. The OverseerFM modelling strongly indicates that there would be a significant and meaningful reduction in nitrogen (N) losses to water. The applicant is proposing to reduce their nitrogen fertiliser use on brassica crops (winter crops grown for intensive winter grazing (IWG)). Clarity on this proposed mitigation was requested by the S42A authors, and so I have emphasised this proposed mitigation here by inserting this mitigation and a description of its effectiveness into Table 2 below, reproduced from the resource consent application. Furthermore, I have proffered a condition, included in the Appendix B copy of the draft consents that addresses this.
58. The OverseerFM modelling strongly indicates that there would be a significant and meaningful reduction in phosphorus (P) losses to water. The proposed significant reduction in P loss is the result of multiple mitigations included within the OverseerFM proposed model, including a reduced pastoral area, decrease in phosphorus fertiliser use, reduction in revised stock units² (RSU), and removal of third party grazing operation. Further mitigations not included within the OverseerFM proposed model include fencing off streams and stock exclusion, 10m buffers for all intensive winter grazing, and planting a 5.5 ha critical source area between the dairy shed and Gap Creek.
59. Sediment and microbiological contaminants are not modelled within OverseerFM so endeavouring to estimate the annual average amounts of sediment and microbiological contaminants in the proposed scenario compared to the amount which has been lawfully discharged currently is

² A revised stock unit (RSU) is defined as an animal with an intake of 6,000 MJ ME intake per year. RSU is also useful for assessing and comparing a farm's carrying capacity. This enables the carrying capacity of dairy and non-dairy systems to be compared, based on feed intake.

challenging. P loss modelling can be used as a proxy for sediment and microbiological contaminant losses. The reason is that P in the soil readily bonds to fine soil particles and is therefore lost to the environment via the same contaminant pathways: that result in the loss of sediment and microbiological contaminants.

60. Microbiological contaminants and sediment are also lost to the environment by the mechanics of water flow via these same pathways. The P loss modelling in this application strongly indicates that sediment and microbiological contaminants will not increase under the proposal, and through a significant reduction in the land area used for pastoral purposes and a reduction in RSU (-14.1%) among other significant improvements from other mitigations, losses would reduce by approximately 421 kg P/year.
61. As described at Para. 21, Irricon reviewed the OverseerFM nutrient budgets prepared by Mo Topham. Irricon determined a high level of robustness.
62. As described at Para. 55, comprehensive numerical quantification of the improvement in concentrations is complex in terms of a percentage reduction in the Orauea River catchment concentrations of key contaminants.
63. Furthermore, we do not have detailed knowledge of other sources of contaminants in the catchment, and there is no catchment baseline contaminant losses known to assess the overall likely reduction as a percentage of catchment loads or concentrations. However, we are confident that if the overall farm contaminant loads would decrease significantly that granting consents for the proposal would not result in an increase in the concentrations of contaminants in freshwater compared to those that were likely to have existed at 2 September 2020.
64. Based on the nutrient reductions modelled and proposed, and subject to the proposed conditions, it is virtually certain that the applicant's proposal is consistent with Regulation 24 of the NESF in its entirety, and that loads, and concentration of key contaminants will not increase, particularly as the baseline OverseerFM model used is for the 2019/2020 year, which represents farm losses prior to 2 September 2020.
65. The mitigations described would be effective at significantly reducing losses of contaminants below the root zone, or in overland flow, and so it is expected that contaminant concentration will not increase in comparison to 2 September 2020.
66. This proposal has used OverseerFM which is recognised as the best tool currently available. I recognise that OverseerFM has limitations and have relied on the evidence of Mo Topham for a detailed description of those limitations or uncertainty. However, when this tool is combined with specific mitigation proposals that are widely recognised as effective in reducing contaminant losses to water and complementary conditions, this can provide a high level of confidence that there will be

an actual significant reduction in contaminant losses to water. I further acknowledge the uncertainties associated to OverseerFM later.

67. Table 10 within the resource consent application detailed the proposed mitigations and identifies whether they have been included within OverseerFM or not, and the purpose and expected outcome of the mitigation. This table is replicated here for convenience (Table 2).

Table 2: Summary of primary mitigations proposed, the purpose and expected outcome. Taken from resource consent application, Table 10. Pg. 33. Mitigation labelled three, inserted as new by me in this brief of evidence.

<i>Mitigations that address Water Quality</i>	Included in Overseer or not.	Purpose & Outcome
1. Reduction in RSU and decrease in cows/ha. Change in stock type.	Included in Overseer	<p>A revised stock unit (RSU) is defined as an animal with an intake of 6,000 MJ ME intake per year. RSU is also useful for assessing and comparing a farm's carrying capacity. This enables the carrying capacity of dairy and non-dairy systems to be compared, based on feed intake.</p> <p>Therefore, a reduction in RSU as proposed (-14.1%) shows that the proposed land use is operating less intensively than the previous farming system being dairy + dairy support, sheep, and beef trading. The RSU decrease is a combination of changes including less stock, (e.g., young bulls, sheep, dairy beef and fewer dairy young stock), a forestry block and retirement of grazing land. Furthermore, in the proposed system, production per cow is proposed at a lower level versus the current dairy farm and therefore the energy required per cow will be lower than in the YE2020 scenario.</p>
2. Conversion to plantation forestry.	Included in Overseer	<p>Retirement of the steep hill county and planting in plantation forestry provides for the below:</p> <ul style="list-style-type: none"> • Less soil disturbance by hooves resulting in less potential for non-point sediment runoff in overland flow, and protects soil structure • Greater vegetative cover (rank grass first, and then trees later) will slow down water as it runs off land reducing sediment/phosphorus losses and sheet erosion, protecting soil structure. • Vegetating and the canopy created by trees reduces the speed of rain fall and dissipate impact energy when raindrops hit soil and therefore reduce sediment loss via sheet erosion, protecting soil structure. • The decrease in P loss estimated by OverseerFM from the pastoral area being converted to forestry is 400 kg P/year in this 288.7 ha block alone. • A reduction in winter crop occurring on steeper land favouring more suitable low-slope land reduces potential for runoff of sediment from vulnerable soils during winter. <p>Excess phosphorus in water can cause rapid weed growth or algal blooms which can choke aquatic life and cause long-term damage to the health of a waterbody/overall hauora and mahinga kai species. Reducing the amount of P fertiliser used, minimises the loss of P from the farm to water and will minimise excessive weed</p>

		<p>growth allowing for mahinga kai sites that are protected from weed, and ensuring mahinga kai is safe to eat.</p> <p>Buffers to fresh waterways within the forestry block will be put in place, along with existing vegetation remaining untouched with appropriate setbacks provided for, this also provides for existing freshwater and indigenous vegetation values by protecting these areas.</p> <p>One of the key benefits of planting forestry is carbon sequestration and the positive contribution towards New Zealand's commitments to climate change action. Although the trees have not be rewarded for in the Overseer modelling, there are broader positive effects of this conversion from pastoral land to forestry. This is further discussed further below.</p>
3. Reduction in nitrogen fertiliser used on brassica crops.	Included in Overseer	The applicant is proposing to comply with NESF Regulation 33 for brassica crops, which is currently not applicable at the per hectare scale for the growing of forage crops. I note that nitrogen fertiliser is bound by the 'average per hectare cap', but not the 'absolute per hectare cap'. Using less fertiliser use on brassica crops minimises the potential for nitrogen leaching through deep drainage (below the root zone where it can no longer be used and converted to plant growth) to groundwater.
4. Planting of 5.5 ha face between dairy shed and Gap Creek	Not rewarded in Overseer	Vegetated buffers are proven successful methods to mitigate nitrogen. Literature shows that wide buffers can provide nitrogen attenuation levels of 27% (winter), and up to 93% (summer), whereas for phosphorus buffers provide 43% removal when buffers are >4m, for sediment and microbial contaminants buffers provide 74% removal when >4m, and function as a large filter to capture contaminants, absorb nutrients, before these can enter water ^{3, 4} . Buffers, and stock exclusion from CSAs are an effective mitigator of most key contaminants originating in the agricultural setting. This provides for consistent, progressive, measured improvement meeting some of the draft objectives within the Ngāi Tahu ki Murihiku Freshwater Objectives (Paetae Tuatahi and Paetae Tuarua).
5. A 10m buffer from IWG to freshwater	Not rewarded in Overseer	A wider buffer slows the velocity of surface run-off to help filter out any sediment and other contaminants. This is well established in the literature, with reports from the late 1980s confirming the benefit of wider buffers, at or greater than 10m. ⁵ There are two primary drivers ⁶ that reduce contaminant loss within wide buffer zones 1) infiltration within the buffer zone which reduces runoff reaching the waterway, reducing the contaminants loss; and 2) the reduction of flow velocity due to the rough vegetation, allowing the sediment to settle out in the grass strip left.

³ Low H, McNab I, Brennan J. Mitigating nutrient loss from pastoral and crop farms. A review of New Zealand Literature. Horizons Regional Council.

⁴ McDowell R, Wilcock B, Hamilton D. (2013). Assessment of Strategies to Mitigate the Impact or Loss of Contaminants from Agricultural Land to Fresh Waters

⁵ Smith C 1989. Riparian pasture retirement effects on sediment, phosphorus and nitrogen in channelized surface run-off from pastures. New Zealand Journal of Marine and Freshwater Research 23: 139-146.

⁶ Gharabaghi B, Rudra R, Goel P 2006. Effectiveness of vegetative filter strips in removal of sediments from overland flow. Water Quality Research Journal of Canada 41: 275-282.

Mechanism to link Fawna Farms Ltd dairy farm, and IFS Growth Ltd forestry block

68. Through the application, I sought to include proposed conditions that related to the commencement of expanded dairy activities and the forestry block development. This was done on the basis that I consider this provides certainty that the forestry development will occur, and this will be completed prior to commencement of expanded dairy farming. The long-term permanence of the forestry I consider is addressed by the National Environmental Standard for Freshwater and Emissions Trading Scheme obligations, as both these provide a relevant regulatory backstop to the 288.7 ha block being used for anything else other than forestry.
69. The parties involved in the consent application recognise that Council requires a more certain and enforceable legal mechanism to provide the permanent link between the 536.8 ha dairy farm and 288.7 ha forestry block.
70. The applicant is proposing a Forestry Right Easement Instrument ("Forestry Right") between IFS Growth Limited (Grantor) and Fawna Farms Limited (Grantee) whereby the Grantor grants to the Grantee the exclusive benefit of the proposed nutrient loss reductions achieved by off-setting the reduction in nutrient loss on the Grantee's Burdened Land (new forestry block) after establishment of the Forest and off-setting that reduction in nutrient loss against any increase in nutrient loss as a result of the increase in cow numbers from 900 to 1,200, and use of more land as dairy farm land on the Grantee's Benefited Land (proposed dairy farm).
71. The way in which the Forestry Right creates the enforceable link between the two properties has been covered off by the applicant's Counsel in legal submissions. A copy of the draft Forestry Right is attached as Appendix C.
72. In summary, Fawna Farms Limited has entered into an agreement with the IFS Growth Limited for a Forestry Right in favour of Fawna Farms Limited to be registered against the title to the forestry block. The objective of the Forestry Right is to give Fawna Farms Limited a registered and enforceable interest in the Forest to ensure that the Forest is maintained and managed as prescribed during the term of any Resource Consents granted on the dairy farm proposed to be used for expanded dairy activities.
73. The Forestry Right as drafted is for a term of 22 years, which exceeds the requested consent duration sought through the resource consent application.
74. In addition to the registered Forestry Right, a consent condition is proposed to ensure the link between the consent and the Forest.
75. An amendment to condition 5 is proposed as shown marked below:

4. The use of land for farming shall occur on the landholding at address, as shown on the plan attached as Appendix 1 [to consent], and consisting of:
 - a. An existing block of land at or about map reference (NZTM 2000) 1201663E 4890884N and comprising Lot 3 DP 340527; Pt Section 94 Waiau SD; Section 1 SO 452868; Section 18 Merrivale Settlement No 2; Pt Section 29 Blk IX Waiau SD; Pt Section 94 Waiau SD; Pt Section 94R Waiau SD; Pt Section 29 Blk IX Waiau SD; Section 16 Merrivale Settlement No 2; Section 110 Waiau SD; Pt Section 8 Blk IX Waiau SD; and
 - b. A new block of land at or about map reference (NZTM 2000) 1200884 4893306 and comprising Lot 2 DP 7360; Lot 7 DP 7360; Lot 6 DP 7360; Lot 1 DP 7360; Lot 3 DP 7360; Lot 5 DP 7360; Lot 4 DP 7360; Section 250 Waiau SD.

5. The consent holder shall not commence expanded dairy activities on the block referred to in Condition 4 (a) and (b) until:
 - a. a 288.7 hectare block marked as 'new plantation forest' as shown on the plan attached as Appendix 1 [to consent] has been fully retired from pastoral grazing; and
 - b. date stamped photos have been submitted to the Consent Authority (EScompliance@es.govt.nz) showing that the 288.7 hectare 'new plantation forest' referred to in (a) above has been fully planted in trees; and
 - c. confirmation has been received in writing from the Consent Authority that Condition 5(b) has been complied with. However, if this confirmation is not received within 10 working days of submission this will be taken as confirmation by the Consent Authority as compliance with Condition 5(b); and
 - d. a Forestry Right has been registered against **[title reference]** in favour of the Consent Holder in respect to the 'new plantation forest'. The Forestry Right shall be in the form approved by the Consent Authority; and
 - e. an annual certificate shall be provided by the consent holder by 30 September each year certifying that to the best of their knowledge the terms of the Forestry Right have been complied with during the preceding 12 months.

76. We are in the process of asking for feedback from the S42A officers on the above suggested approach to link the mitigation on the forestry block to the proposed dairy farm with a view that if the S42A officers still have reservations on this proposed mechanism, this can be addressed prior to the hearing.

Statutory Considerations

77. Sections 3.4 and 3.5 of the S42A report detail a comprehensive planning assessment with regards to the Regional Water Plan (2010), the PSWLP, and the Southland Regional Policy Statement. I consider that that assessment has been very thorough with regards to the Regional Water Plan (2010) and the PSWLP, and I agree with the S42A reports conclusions and consider that the proffered conditions address the S42A concerns. As such I do not repeat the analysis in this report.

However, I note that the S42A report policy conclusions were subject to demonstrating the long-term offsetting mechanism. This has been addressed in my evidence above.

78. Section 3.6 of the S42A report details the National Policy Statement for Freshwater Management. I consider that the assessment has been very thorough as such I do not repeat the analysis in this report.
79. Section 3.8 of the S42A report details the National Environmental Statement for Freshwater Management (2020) (NESF), National Environmental Standard for Sources of Human Drinking Water (2007), and the Resource Management (measuring and Reporting of Water Takes) Regulations (2020).
80. I agree with the S42A officers that the proposal is consistent with the NPSFM, including Policies 1, 3, 7, 9 and 10. I highlight Policy 5 as being particularly relevant because it directs that water quality must be maintained or improved. I rely on the expert nutrient budget evidence, and the proposed conditions to conclude that implementation of the proposal will see a small reduction in contaminant loss to water and that this will make a contribution to improving water quality in the catchment. I consider that implementation of the proposal will contribute to achieving an improvement in groundwater and surface water quality, which would benefit ecosystem health and human health (the Waiau River is a source of drinking water) noting that these are two obligations identified in the NPSFM. The proposal inherently recognises the values and connections of Te Mana o te Wai as set out in the NPS. I note that Te Ao Marama wish to be heard.
81. Section 3.9 of the S42A report details Te Tangi a Tauira. I agree with that assessment.
82. Section 3.10 of the S42A report details Section 105 and 107 of the RMA. I agree with that assessment.

Part 2 of the RMA

83. The S42A reporting officer emphasises the appropriateness of Part 2 of the RMA when considering this proposal. Section 104(1) RMA states that when considering an application for a resource consent, any actual and potential effects on the environment, including positive, are subject to the purpose and principles in Part 2 RMA. However, the Supreme Court in King Salmon⁷ found that, in the absence of any uncertainty, invalidity or incomplete coverage in the relevant policy or plan document, there is no need to have recourse to an overall judgment approach under Part 2. I do not consider there are any instances of uncertainty, invalidity or incomplete coverage in the planning instruments discussed in the resource consent application, namely given the existing and clear

⁷ Environmental Defence Society Incorporated v The New Zealand King Salmon Company Limited [2014] NZSC 38 (King Salmon).

policy direction set out under the NESF. Therefore, I consider that a detailed assessment against Part 2 of the RMA is not required.

84. However, as the S42A report specifically discusses matters related to sustainable management of resources, I have included some brief comments below.
85. I consider the proposal is consistent with Part 2 of the RMA as the applicant is now proposing a sustainable legal mechanism in the form of a registered forestry right linking the expanded dairy activity and the forestry block development. Part 2 seeks to enable the applicant to utilise their land for farming in a way that provides for their social and economic well-being, that of their staff, families and whanau and the rural economy, while also enabling them to reduce their 'environmental footprint' in a manner that will achieve sustainable management as defined in Section 5(2).
86. Important to this assessment has been the collaborative approach taken of IFS Growth Limited and Fawna Farms Limited to collaborate and showcases that there are opportunities for farmers and other rural land owners to apply innovative solutions to ensure their respective businesses operate sustainably into the future. This further allows companies like IFS Growth Limited to promote and facilitate the sustainable management of natural and physical resources. The proposed legal mechanism to link the two blocks through a Forestry Right registered on the relevant property records of title, we consider consistent with Section 5 of Part 2 of the RMA.

Rule Framework

87. I agree with the S42A report that the overall activity status when bundled is discretionary.

Draft consent conditions

88. I acknowledge and thank Mr Gericke for providing a copy of draft conditions along with the main S42A report. I have reviewed those conditions and I am in general agreement with them. I have made a number of relatively minor suggested changes that I consider would make some of the conditions more robust and/or practicable. Those specific changes are detailed together with applicable comments in the attached Appendix B. I have also included the additional proffered consent conditions that would lock in offsetting provided by the forestry land through the registered forestry right.
89. I have very few comments in relation to draft consent AUTH-20222565-01 (Discharge Permit) and AUTH-20222565-02 (Water Permit). Below I focus on AUTH-20222565-03, the Land Use Consent for Farming.
90. However, I do note with regards to AUTH-20222565-01 Discharge Permit, that this should also include, if granted, authorisation to discharge contaminants into or onto land associated with the use

of land for dairy farming, consistent with Regulation 24 of the NESF. My understanding is that this would be consistent with Environment Southland's approach.

Draft Consent AUTH-202225665-03

91. I have included in Appendix B on Draft Consent AUTH-202225665-03 (Land Use Consent farming) the proffered condition linking the mitigation through the Forestry Right.
92. Point of clarification has been suggested for Condition 6's associated advice note as there is no wintering barn on this property.
93. Condition 7 refers to a block of land not relevant to this proposal, 'Valley Views support block' should be removed.
94. I have inserted text to Condition 13 (c) to ensure the synthetic nitrogen fertiliser authorised rate of 190 kg/ha/year applies to both pasture and brassica crops, as proffered through mitigations. Here, 'brassica forage crop' takes the definition of an annual forage crop as included within the NESF and 'intensive winter grazing' within the PSWLP.
95. I have suggested rewording Condition 14, and for this I have also relied on the evidence of Mo Topham. The applicant proposes to target an Olsen P proposed property average of 32. On the existing dairy platform, this is a reduction from 33 to 32, on average. An average Olsen P for the farm is important as Olsen P fluctuates, season to season and paddock to paddock, and the applicant is proposing to maintain an average Olsen P of 32, plus or minus 2 units, and therefore a range of 30 to 34 has been included in the draft consent condition.
96. This average approach, and including a range, accommodates the variation in soil test that occur where individual soil samples may equal or exceed 40, or equally, be as low as 25, for example. This average approach, and use of a range (plus or minus 2 units), is required due to the proposed mixed land use occurring on the proposed larger contiguous landholding. At Condition 14 (b), if 'average' Olsen P levels exceed a range of '30 to 34', the appropriate mechanisms are in place to ensure the risk of phosphorus loss is minimised.
97. With regards to Condition 15, 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 has been used in consenting processes, mitigation measures and input based consent conditions are a more meaningful way to ensure the improvements proposed will occur.

98. Whilst acknowledging the uncertainties in the OverseerFM model, it has been a useful tool used here for the Fawna Farms Ltd resource consent application to ensure the mitigations proposed are robust and will have a meaningful outcome.

99. There is a suite of conditions included on the draft resource consent that I am in general agreement with, along with further conditions proffered by the applicant, that provide certainty the proposed improvements will occur, for example, but not limited to:

- A limit on the numbers of mature age dairy cows, youngstock classes for dairy support, and the area of forage crop to be used for intensive winter grazing;
- Exclusion of beef cattle and sheep;
- Implementation of a soil testing regime, including limits on soil Olsen P level;
- Limits on the use of nitrogen fertiliser for pasture and brassica forage crops;
- Checks in place to ensure that laneways, gateways, and stock crossings, are well kept and not sources of contamination to freshwater;
- Targeted mitigation conditions that include minimum requirements for any new fencing, planting of a 5.5 ha area between the dairy shed and Gap Creek; implementation of good management practices for intensive winter grazing, and maintaining a minimum 10m buffer at all times for intensive winter grazing to freshwater sources;
- Controls on resowing for winter crops, including excluding sloping land over 10 degrees; and
- A Farm Environmental Management Plan. This Farm Environmental Management Plan sets out the implementation of good management practices and mitigations, and records the methods used to achieve the environmental objectives for the farm. In future this Farm Environmental Management Plan will likely be certified under section 217G of the RMA as part of the Certified Freshwater Farm Plan process.

100. With the above input based controls in place, and in light of the Government's Science Advisory Panel's review of the effectiveness of Overseer, I propose that Conditions 15 to 20 of AUTH-20225665-03 be removed.

101. The section of draft Land Use Consent AUTH-20222565-03 titled 'targeted mitigations' includes a number of template conditions from Environment Southland that are not relevant to this proposal. Overall, the below is not relevant to this proposal:

- Condition 26 (b) – no riparian planting strips are proposed;

- Condition 27(a) and (b) – no critical source areas have been identified for permanent stock exclusion. Following good management practice, stock exclusion of critical source areas when required will be established through temporary fencing;
- Condition 28 – the applicant is not proposing to prepare a Riparian Planting Plan. Any Riparian Planting Plan to be prepared in future will be done so through the Certified Freshwater Farm Plan process to be rolled out in 2023. Once operating the proposed property, if consent is successful, Fawna Farms Limited would like to determine the priority areas for any riparian planting once gaining an understanding of the environment, as compared to selecting any nominal locations for planting and specifying an area now that in fact may not result in meaningful improvement or be in an inappropriate location;
- Condition 29 (b) and (c) – this condition further refers to a Riparian Planting Plan that as I explain above is not relevant at this time. Condition 29 (a) can be considered relevant as the applicant is proposing to plant a 5.5 ha area between the dairy shed and gap creek.
- Condition 30 (g) – this requirement to retain a 5m vegetated strip appears to be similar, or duplicate Condition 30 (h). The applicant is proposing to maintain a 10 metre buffer at all times between any surface water way and the area annual forage crops being grazed 1 May to 30 September.

Consent Duration

102. A duration of just over seven years has been sought for all applications, with a common expiry of 31 December 2031, consistent with NESF Regulation 24 (2).

103. I disagree with the S42A report's conclusion to align the expiry date to the end of the milking season, 31 May 2030. On a dairy system that includes winter crop, the end of the milking season is largely irrelevant to the Land Use Consent for Farming, that includes also conditions for other activities, such as Intensive Winter Grazing, and the presence or not of youngstock grazing and/or cow wintering occurring on farm which are not necessarily defined by the 31 May each year.

MATTERS RAISED BY SUBMITTERS

104. The application for resource consent was publicly notified. Submissions were received from two parties; Te Ao Marama on behalf of Oraka Aparima Rūnaka, and Coal Action Murihiku. Further comment has been provided on submissions below.

A submission in opposition was made by Te Ao Marama on behalf of Oraka Aparima Rūnaka.

105. The applicant has endeavoured to work with Te Ao Marama to address the concerns of Oraka Aparima Rūnaka. On behalf of the applicant, and IFS Growth Limited, I engaged with Te Ao Marama

prior to the consent application being prepared and sought feedback on the general approach proposed for the consent application prior to this being formally lodged. Furthermore, on behalf of the applicant I extended an invitation to Te Ao Marama to visit the farm.

106. I acknowledge I am not suitably qualified to make conclusions on the scale of potential effects on the mauri of waterbodies and I note that submitters had concerns on the hauora of the Waiau River. Rather below I focus on what appear to be the specific underlying concerns.

107. Te Ao Marama are requesting the application be declined based on the below identified risks/concerns. The main concerns in the submission include the link between the mitigation occurring on the IFS Growth block and the applicant's dairy farm, the effectiveness of mitigations, assessment of alternatives, and Te Mana o te Wai. These are further expanded on briefly below in Table 3.

Table 3: Summary of Submission from Te Ao Marama and my comment.

Issues/comments	Comment
Risk from intensification on the mauri of the water and potential adverse effects on cultural values, rights and interests and on achieving kaitiaki responsibilities.	I acknowledge the position statement from Oraka Aparima Rūnaka provided by Te Ao Marama. I am unable to comment on the mauri of the Orauea River. However, wish to reiterate that the proposed mitigations have the ability to provide for a small improvement in local water quality, and the load and concentration of key contaminants will not increase.
Lack of meaningful engagement with mana whenua.	I wish to acknowledge that I on behalf of the applicant made attempts to discuss the application with Te Ao Marama, and provided a prior copy of the resource consent application executive summary before the consent application was lodged. The Applicant values the opportunity to engage with mana whenua and remains open and willing to engage.
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.	The applicant is proposing a registered Forestry Right on the relevant land title to formalise the nutrient offset proposed, and retirement of land from pastoral use during the term of the consent. Dan Minehan's evidence provides context as to the sustainable management of the forestry, and operational aspects that mean the forestry block with comply with all relevant regulations.
Concerns around other mitigations and their effectiveness to provide any certainty around effects on water.	Further addressed through my brief of evidence is a description on the effectiveness of mitigations, and comments above with regards to OverseerFM and the high level of robustness determined by Irricon allowing confidence in the proposed nutrient reductions, and reductions in other key contaminants, such as sediment and bacterial contaminants through mitigations not captured within the OverseerFM models. The use of OverseerFM has been supported by a description on the effectiveness of the proposed mitigations and their suitability in the local environment.
Cumulative effects of further dairy intensification.	One purpose of the proposal is to enable the dairy operation to become self-contained for wintering, and spreading the wintering

	<p>activities over a larger land holding and making more feed on farm; the amalgamation of the two blocks will help balance the milking platform activities with the production of feed, and dairy support activities. Being more self-contained for wintering means the consent holder has more control and relies less on third party contracts for cow wintering.</p> <p>Subsequently, whilst a local improvement in water quality will be achieved, this contributes more cumulatively to the Orauea River and Waiau Catchment as the applicant's approach minimises broader cumulative effects, and offers positive effects.</p>
No assessment of alternatives such as only adding extra land and no extra cows.	<p>Simeon Ward through his evidence details Fawna Farm's approach to acquiring the additional land to complement the existing dairy operation by allowing for a combination of dairy youngstock and intensive winter grazing to occur within the Fawna Farms Limited contiguous landholding. Simeon Ward details how this can be done efficiently, and in an environmentally sustainable way by being more self-contained.</p> <p>Through this approach there is a desire to increase the milking herd size while reducing the total RSU (revised stock units) on the proposed property to support the business case. Therefore, whilst there are additional dairy cows proposed within the environment, once accounting for those extra cows, there are less animals overall.</p>
Concerns around the overall health of the Orauea catchment.	<p>Based on the nutrient reductions modelled and proposed, and subject to the proposed conditions, and registered Forestry Right; it is virtually certain that the applicant's proposal will result in an improvement in water quality.</p> <p>I am unable to comment on how these proposed improvements through contaminant reductions (loads and concentrations) relate to the cultural health of the Orauea River Catchment.</p>
Unclear whether the application has assessed the hierarchy of obligations correctly under the National Policy Statement for Freshwater 2020 (NPS-FM).	<p>An assessment of the National Policy Statement for Freshwater (2020) and Te Mana o tie Wai is included within the application.</p>

A submission in opposition was made by Coal Action Murihiku.

108. Coal Action Murihiku are requesting that the application be declined based on the below identified risks/concerns. The main concerns raised in the submission include degraded waterways in Murihiku, mitigations, climate change, groundwater quality and consultation with Tangata Whenua.

109. I acknowledge the concerns of the submitter in regard to the current state of degraded waterbodies in Southland, including the Waiau River. As shown through nutrient modelling and mitigations, the proposal is highly likely to result in an extremely small contribution to improvement in water quality. However, it is important to appreciate that measurable improvement in catchment water quality requires an all of catchment approach as I understand is going to be included in the forthcoming new Southland Water and Land Plan that is scheduled to be notified by the end of 2023.

110. The submitter references 'Environment Southland for the People, Water and Land programme - Te Mana o te Tangata, te Wai, te Whenua'. Care has been taken when preparing the application to ensure the mitigations proposed reflects the recently released Regional Forum's report on Achieving the Community's Aspirations for Freshwater. Namely focusing on livestock intensity over the landholding, nutrient management through the FEMP with on-farm monitoring to match soil need to fertilisers used, stock exclusion through 10m buffer (grass strip) to freshwater ways for any IWG wintering that occurs 1 May to 30 September is proposed, and retirement of 288.7 ha of land from pastoral use and planting this in trees. While we consider the proposal is consistent with the People, Water and Land programme - Te Mana o te Tangata, te Wai, te Whenua, we are also very conscious that the primary focus is to ensure consistency with the current statutory and planning framework.
111. The submitter is concerned that the mitigations proposed do not sufficiently mitigate the negative effects on freshwater quality. Included in the resource consent application to support the proposed improvement in water quality is a detailed description of how the mitigations proposed avoid or mitigate effects so that the effects of the proposal are significantly less than the farming activities already occurring. For convenience this comparison has been reproduced in Table 2.
112. The submitter has concerns about contaminant management and the adequacy of mitigation measures proposed to deal with the additional effluent, N and P being produced by the additional animals. I note that the DESC assessment shows that there is more than sufficient storage for effluent and that the discharge area is significantly larger than what is recommended. Nutrient modelling has shown that there would be an overall decrease in both N and P contaminant loadings.
113. Furthermore, the proposal includes a reduction in RSUs. A revised stock unit (RSU) is defined as an animal with an intake of 6,000 MJ ME intake per year. Therefore, RSU is also useful for assessing and comparing a farm's carrying capacity. A reduction in RSU is proposed (-14.1%) showing that whilst there are an additional 300 dairy cows in the proposed environment, the expanded dairy system with these 300 cows is operating less intensively than the previous farming system being dairy + dairy support, sheep, and beef trading. The RSU decrease is a combination of changes including less stock, (e.g., young bulls, sheep, dairy beef and fewer dairy young stock), a forestry block and retirement of grazing land. Therefore, as RSU is a useful proxy for feed consumed on a farm, it is also a useful proxy for the end products defecated, therefore whilst additional effluent from defecating dairy cows will occur, there is less feed being consumed overall, over the new contiguous land holding.
114. Furthermore, as described in Mo Topham's evidence, the applicant is proposing to increase the effluent disposal area which through her evidence she shows there is sufficient area for the nitrogen loading expected from effluent. The nitrogen loading from effluent is proposed to reduce from 95 kg N/ha/year to 56 kg N/ha/year on the effluent area.

115. The submitter references the removal of opportunities for the local community by reducing the number of people employed on farms, affecting schools, community facilities and social well-being, by taking land out of production farming. I refer to Dan Minehan's evidence that describes the relationship between the forestry block and local community.
116. I wish to reiterate that not all productive pastoral land is being removed, rather the proposal is focused on matching land use activity to topography (a practice that should be encouraged and enabled), and the dairy expansion will provide further opportunities for the local community, in addition to that created by the forestry development.
117. The submitter has concerns about groundwater quality. The submitter considers that the New Zealand Drinking Water Standard (NZDWS) for nitrate nitrogen is set too high. The applicant is not required to address this matter. Groundwater nitrate-nitrogen levels currently comply with the NZDWS. Data for groundwater bores within 5km of the applicant's proposed property indicate that local nitrate-nitrogen levels have a median of 0.002 mg/L and is lower than the submitters indicated preference for levels < 2 mg/L.
118. The submitter has concerns that the expanding dairy cow numbers will have a detrimental impact on the ability to reduce methane emissions to meet what is required under domestic and international agreements to keep climate change warming below 1.5 degrees. It is my understanding that greenhouse gas emissions are currently not a relevant matter under the Resource Management Act⁸. I further note that that He Waka Eke Noa and the Emissions Trading Scheme are proposed to address the agreements referred to. Additionally, current and future mitigations on farm, such as riparian planting and decreased nitrogen fertiliser use, are likely to result in a reduction in emissions.
119. Mo Topham through her evidence has included an estimate of the agricultural emissions to address the concerns raised by Coal Action Murihiku with regards to methane. Overall, OverseerFM has predicted a greater than 10% reduction in the total agricultural emissions (methane and nitrous oxide) from the proposed farm system compared to the current.
120. Dan Minehan in his evidence has detailed how the forestry development will be undertaken with regards to the National Environmental Standard Plantation Forestry.

CONCLUSIONS

121. The granting of the resource consent applications is highly likely to result in a reduction in contaminant losses to water compared to the existing environment and importantly, compared to the status quo. A key objective of the PSWLP and higher planning instruments is to improve water quality

⁸ <https://environment.govt.nz/acts-and-regulations/regulations/discharge-to-air-of-greenhouse-gases/>

in the receiving environments and a strong case has been made that granting the applications would result in a very small contribution to that goal.

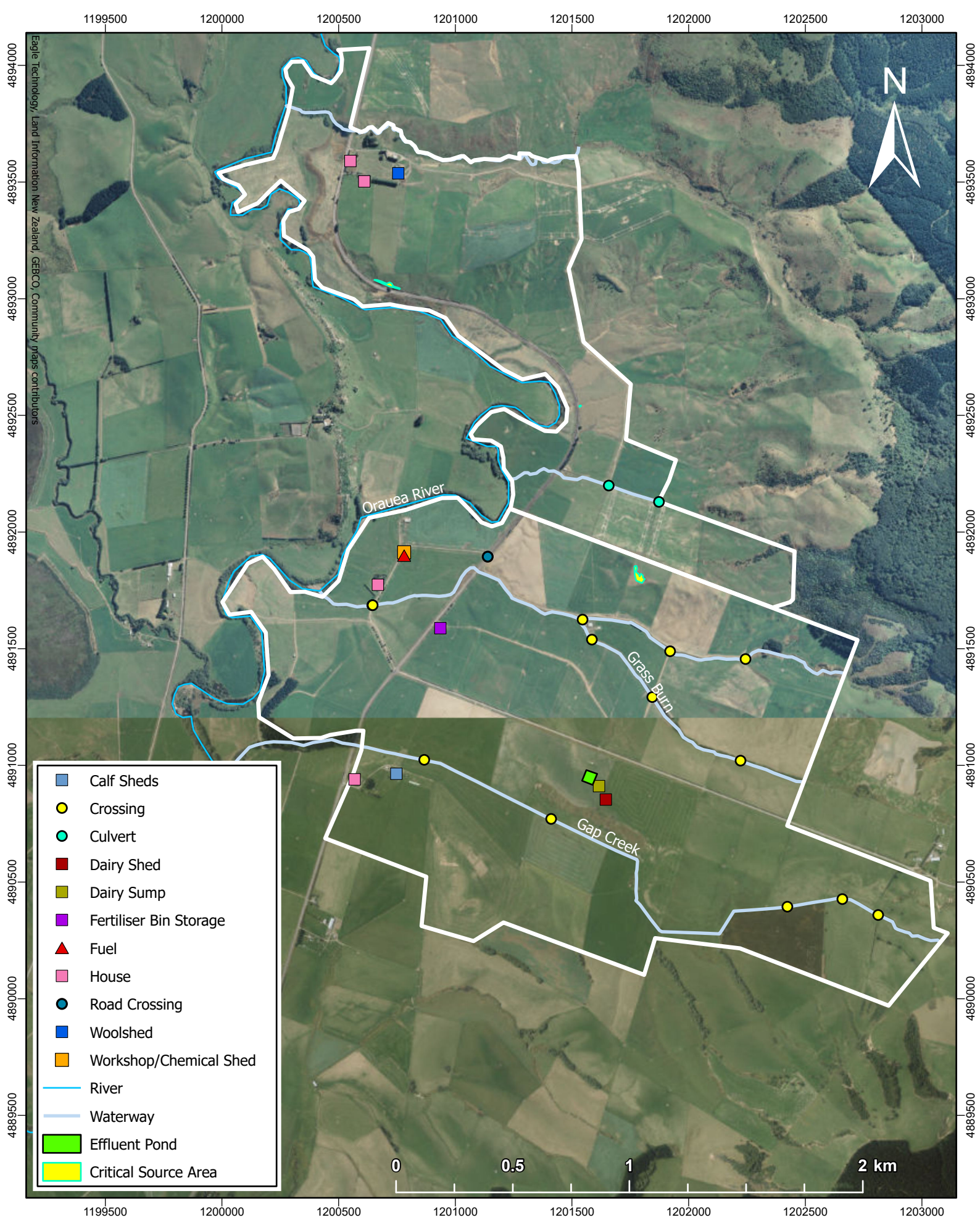
122. The proposed mitigations would ensure that both contaminant loads and concentrations would be reduced when compared to 2 September 2020 satisfying the requirements of Regulation 24 in the NESF.

A handwritten signature in black ink that reads "Christina Railton". The signature is written in a cursive, flowing style.

CHRISTINA RAILTON

8 March 2023

APPENDIX A – FARM OVERVIEW MAP



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Fawna Farms Ltd Farm Overview and Critical Source Areas

Client: Fawna Farms Ltd

Job Number: 22417

Date: 13/09/2022

Revision: Map 1

APPENDIX B - DRAFT CONSENT CONDITION WITH COMMENTS



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

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

Discharge Permit

Under Section 104B of the Resource Management Act 1991, a resource consent is granted by the Southland Regional Council to **Fawna Farms Limited** of **370 Mossburn Lumsden Highway, Castlerock, 9792** from **XX March 2023**.

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

Details of Permit

Purpose for which permit is granted:	To discharge agricultural effluent to land from up to 1200 cows via low-rate pods, travelling irrigator, slurry tanker or umbilical system to discharge contaminants into or onto land associated with the use of land for dairy farming
Location	<ul style="list-style-type: none"> - site locality 1620 Ohai Clifden Highway - map reference NZTM2000 1201663E 4890884N - physiographic zone(s) Bedrock/Hill Country, Gleyed & Oxidising - groundwater zone(s) Unclassified - catchment Waiau River - FMU Waiau
Legal description of land at the site:	Lot 3 DP 340527; Pt Section 94 Waiau SD; Section 1 SO 452868 Section 18 Merrivale Settlement No 2; Pt Section 29 Blk IX Waiau SD; Pt Section 94 Waiau SD; Pt Section 94R Waiau SD; Pt Section 29 Blk IX Waiau SD; Section 16 Merrivale Settlement No 2; Section 110 Waiau SD; Pt Section 8 Blk IX Waiau SD
Expiry date:	31 May 2030 31 December 2030

Schedule of Conditions

General conditions

1. This resource consent shall not be exercised until Discharge Permit AUTH-20146534-01-V2 is surrendered or has expired.

2. This consent shall be exercised in conjunction with Land Use Consent AUTH-20222565-03.
3. This consent authorises the discharge of dairy shed effluent (“agricultural effluent”) onto land, via a land disposal system consisting of a stone trap, weeping wall and sludge beds and synthetically lined effluent storage pond to low rate pods, travelling irrigator, umbilical system and slurry tanker, as described in the application (APP-20222565) for resource consent dated 6 October 2022. The activity shall be limited to:
 - (a) the discharge to land of agricultural effluent generated from milking of up to 1200 cows up to twice per day;
 - (b) the discharge to land of agricultural effluent via a high rate travelling irrigator and low rate pods system;
 - (c) the discharge to land of agricultural effluent via a high rate umbilical system and slurry tanker as contingency measures;
 - (d) the discharge of agricultural effluent to an area of 271.4 hectares as per the plan attached as Appendix 1;
 - (e) the discharge of contaminants to land associated with the conversion of land on a farm to dairy farm land.

Advice Note: Routine monitoring inspections of this consent may occur up to 2 times a year. This number does not include any other required inspections.

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

Exclusions

10. This consent does not authorise the discharge of:
- (a) dairy shed effluent collected during 11 June to 24 July;
 - (b) effluent collected by a feed pad, calving pad, wintering barn, silage storage facility or underpass.

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

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

12. The stored or discharged agricultural effluent shall not enter any surface watercourse in any way, including:
- (a) directly;
 - (b) indirectly;
 - (c) by overland flow;
 - (d) via entrainment by stormwater or run-off; or
 - (e) via a pipe.

13. The stored or discharged agricultural effluent shall not:
- (a) form ponds or flow on the land surface, or
 - (b) cause contamination of water.

14. The stored or discharged agricultural effluent shall not cause any odour beyond the boundary of the site (see Appendix 1) that is offensive or objectionable in the opinion of the Council's Compliance Officer.

15. Spray drift beyond the boundary of the site shall not occur.

Effluent storage

16. The agricultural effluent discharge shall occur via an agricultural effluent storage facility of between 882 cubic metres (*Massey Pond calculator number*) and 4,590 cubic metres (*what they have or are going to build*) capacity.
17. The Consent Holder must maintain at least 500mm of freeboard in the agricultural effluent storage facility at all times.

System management

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

19. The Consent Holder shall install and maintain:
 - (a) an operational alarm that alerts the Person in Charge to any system failure that could cause the over-application, overflow or spilling of agricultural effluent (e.g. sudden pressure drop, irrigator stoppage); and / or
 - (b) an operational automatic switch-off system that prevents any over-application or spilling of agricultural effluent.
20. Where the agricultural effluent reticulation system is installed in such a way that effluent can be siphoned when pumping ceases, the Consent Holder shall install and maintain an anti-siphon device in the agricultural effluent pipeline.
21. In the event of the failure or mismanagement of the agricultural effluent disposal system, or any other event that may result in a discharge of agricultural effluent that may have significant adverse effect on water quality, particularly in the region of the abstraction point of a registered drinking-water supply, the Consent Holder shall notify, as soon as reasonably practicable, the following:
 - (a) the Consent Authority (ph 03 211 5115 or 03 211 5225 after hours); and
 - (b) Southland District Council (ph. 0800 732 732).

Collected Agricultural Effluent Management Plan

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

Advice note: *The Collected Agricultural Effluent Management Plan required by Condition 22 may be incorporated into the Farm Environmental Management Plan required by AUTH-20222565-03, and prepared in accordance with Appendix N, of the proposed Southland Water and Land Plan (Decisions Version) (or any updated version of the plan).*

Review of consent

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

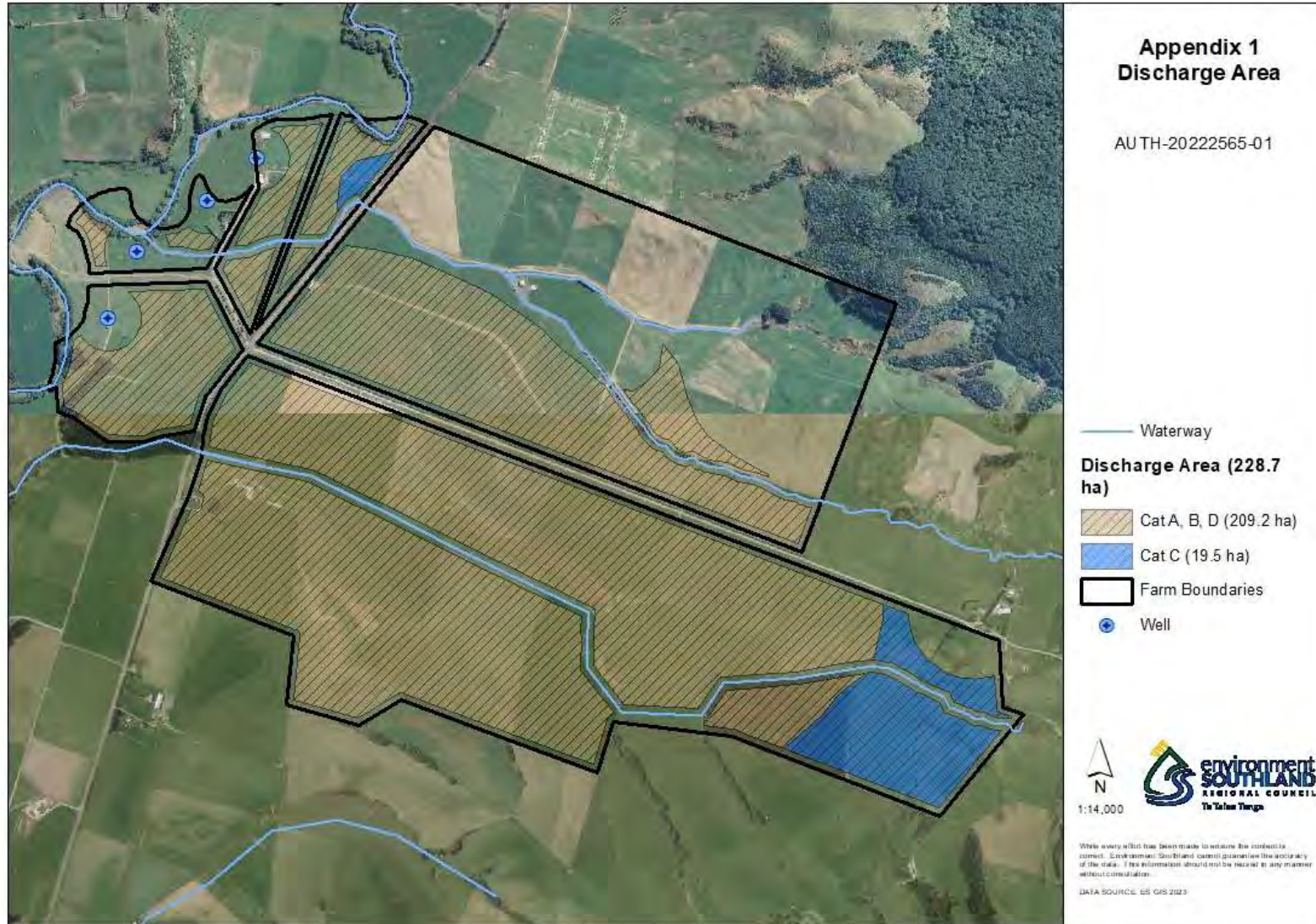
for the **Southland Regional Council**

Commissioner Alan Cubitt
Independent Hearing Commissioner

Notes:

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

Appendix 1





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

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

Water Permit

Under Section 104B of the Resource Management Act 1991, a resource consent is granted by the Southland Regional Council to **Fawna Farms Limited** of **370 Mossburn Lumsden Highway, Castlerock, 9792** from **XX March 2023**.

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

Details of Permit

Purpose for which permit is granted:	To take and use groundwater for the purpose of stockwater and dairy shed use.
Location	- site locality 1620 Ohai Clifden Highway - map reference D45/0316 1201548E 4890938N D45/0355 1200616E 4891852N D45/0349 1200769E 4891929N D45/0351 1200311E 4891492N
	- groundwater zone(s) Unclassified
	- catchment Waiau River
Legal description of land at the site:	Lot 3 DP 340527 & Pt Section 94 Waiau SD
Expiry date:	31 May 2030 31 December 2030

Schedule of Conditions

- This consent shall not be exercised until Water Permit AUTH-20202016 is surrendered or has expired.
- This permit authorises the taking of groundwater at the location specified above. The rate of abstraction shall not exceed:
 - 2.1 l/s**
2 litres per second;
 - 179,625 litres per day; and
 - 52,560,000 litres per year.

Advice Note

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

The bore or well design and headwork's prevent:

- (i) the infiltration of contaminants; and*
- (ii) the uncontrolled discharge or leakage of water to the ground surface or between aquifers.*

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

3. Prior to the first exercise of this consent, the Consent Holder shall install a backflow prevention device or take other appropriate measures to ensure water and/or contaminants cannot return to the water source.
4.
 - (a) Prior to the first exercise of this consent, the Consent Holder shall install a water meter to record the water take, within an error accuracy range of +/-5% over the meter's nominal flow range. The Consent Holder shall forward a copy of the installation certificate to the Consent Authority within one month of installing the water meter.
 - (b) The water meter shall be installed in a straight length of pipe, before any diversion of water occurs. The straight length of pipe shall be part of the pump outlet plumbing, easily accessible, have no fittings and obstructions in it. There shall be a straight length of pipe on either side of the water meter, on the upstream side there shall be a distance that is 10 times the diameter of the pipe and on the downstream side there shall be a distance of five times the diameter of the pipe.
 - (c) The Consent Holder shall ensure the full operation of the water meter at all times during the exercise of this consent. All malfunctions of the water meter during the exercise of this consent shall be reported to the Consent Authority within five working days of observation and appropriate repairs shall be performed within five working days. Once the malfunction has been remedied, a Water Measuring Device Verification Form completed with photographic evidence must be submitted to the Consent Authority within five working days of the completion of repairs.
 - (d)
 - (i) If a mechanical insert water meter is installed it shall be verified for accuracy each and every year from the first exercise of this consent.
 - (ii) Any electromagnetic or ultrasonic flow meter shall be verified for accuracy every five years from the first exercise of this consent.
 - (iii) Each verification shall be undertaken by a Consent Authority approved operator and a Water Measuring Device Verification Form shall be completed and supplied to the Consent Authority with receipts of service. These shall be supplied within five working days of the verification, and at any time upon request.
 - (e) The Consent Holder shall maintain a record of the total volume of water abstracted each month. The Consent Holder shall provide this record to the Consent Authority by 31 May each year and at any other time on request.

5. Prior to the exercise of this consent, the Consent Holder shall notify the Consent Authority of the person who is in charge of the operation this consent. If the person in charge changes during the term of this consent, the Consent Holder shall notify the Consent Authority of the new operator no later than five working days after that person takes responsibility.

6. The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions of this consent during the period 1 February to 30 September each year, or within two months of any enforcement action being taken by the Consent Authority in relation to the exercise of this consent, or on receiving monitoring results, for the purposes of:
 - (a) adjusting the consented rate or volume of water under Condition 2, should future changes in water use indicate that the consented rate or volume is not able to be fully utilised;
 - (b) determining whether the conditions of this consent are adequate to deal with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage;
 - (c) ensuring the conditions of this consent are consistent with any National Environmental Standards Regulations, National Policy Statement, Water Conservation Order, relevant plans and/or any relevant Regional Policy Statement; or
 - (d) adjusting or altering the method of water take data recording and transmission.

for the **Southland Regional Council**

Commissioner Alan Cubitt
Independent Hearing Commissioner

Notes:

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



AUTH-20222565-03

Cnr North Road and Price Street
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DX XY20175)
Invercargill

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Land Use Consent

Under Section 104B of the Resource Management Act 1991, a resource consent is granted by the Southland Regional Council to **Fawna Farms Limited** of **370 Mossburn Lumsden Highway, Castlerock, 9792** from **XX March 2023**.

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

Details of Consent

Purpose for which permit is granted: Use of land for farming

Location **Groundwater zone** - Unclassified
FMU - Waiau
Physiographic zone(s) - Bedrock/Hill Country, Gleyed & Oxidising
Catchment - Waiau River

Expiry date: **31 May 2030** **31 December 2030**

Schedule of Conditions

1. Except as modified by conditions of resource consent, the activities authorised by this resource consent shall be carried out in general accordance with the application for resource consent (APP-20222565)¹ and all subsequent information provided during the application and the Farm Environmental Management Plan required by this consent.
2. For the avoidance of doubt, in the event that any inconsistency between the conditions of resource consent and the information and plans, including the Farm Environmental Management Plan (FEMP), submitted as part of the application, the conditions of resource consent shall prevail.

¹ Environment Southland Document ID: A833378

3. This consent shall be exercised in conjunction with Discharge Permit AUTH-20222565-01 and Water Permit AUTH-20222565-02 or any subsequent replacement permits.

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

4. The use of land for farming shall occur on the landholding at 1620 Ohai Clifden Highway, as shown on the plan attached as Appendix 1, and consisting of:

- (a) an existing block of land at or about map reference (NZTM 2000) 1201663E 4890884N and comprising Lot 3 DP 340527; Pt Section 94 Waiau SD; Section 1 SO 452868; Section 18 Merrivale Settlement No 2; Pt Section 29 Blk IX Waiau SD; Pt Section 94 Waiau SD; Pt Section 94R Waiau SD; Pt Section 29 Blk IX Waiau SD; Section 16 Merrivale Settlement No 2; Section 110 Waiau SD; Pt Section 8 Blk IX Waiau SD; and
- (b) a new block of land at or about map reference (NZTM 2000) 1200884 4893306 and comprising Lot 2 DP 7360; Lot 7 DP 7360; Lot 6 DP 7360; Lot 1 DP 7360; Lot 3 DP 7360; Lot 5 DP 7360; Lot 4 DP 7360; Section 250 Waiau SD.

5. The consent holder shall not commence expanded dairy activities on the block referred to in Condition 1(b) until:

- (a) a 288.7 hectare block marked as 'new plantation forest' as shown on the plan attached as Appendix 1 has been fully retired from pastoral grazing; and
- (b) date-stamped photos have been submitted to the Consent Authority (EScompliance@es.govt.nz) showing that the 288.7 hectare 'new plantation forest' referred to in (a) above has been fully planted in trees; and
- (c) confirmation has been received in writing from the Consent Authority that Condition 5(b) has been complied with. However, if this confirmation is not received within 10 working days of submission this will be taken as confirmation by the Consent Authority as compliance with Condition 2(b).

6. The farming activities shall be limited to:

- (a) a maximum milking herd of no more than 1,200 cows; and
- (b) a maximum of 300 R1 cattle, 285 R2 cattle and 25 mating bulls.

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

7. The Consent Holder shall notify the Consent Authority the identity of the Person in Charge of Valley View support block:

- (a) prior to the first exercise of this consent, and
- (b) no more than five working days following the appointment of any new Person in Charge.

Commented [GG1]: Condition could be added which requires the applicant to respond to any potential changes on the forestry block (i.e. reducing stock numbers if the forestry activity changes)

Through my brief of evidence I have proffered further conditions.

5 (d) a Forestry Right has been registered against [title reference] in favour of the Consent Holder in respect to the 'new plantation forest'. The Forestry Right shall be in the form approved by the Consent Authority; and

5 (e) an annual certificate shall be provided by the consent holder by 30 September each year certifying that to the best of their knowledge the terms of the Forestry Right have been complied with during the preceding 12 months.

This block is not part of this proposal.

Exclusions

8. Intensive winter grazing of stock on the land is limited to 53.7 ha of winter forage crop on the dairy platform grazed by mature age cows, R1s and R2s.
9. The landholding must not be grazed by mature aged female beef cows, mature age beef steers or sheep at any time of the year.

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

10. Cultivation and intensive winter grazing shall not occur on a slope over 10 degrees.

Nutrient Management

11. The Consent Holder shall implement a soil testing regime to determine the soil fertility status over the landholding and to develop fertiliser recommendations based on the soil testing results.
12. The Consent Holder shall maintain a record of their soil testing regime, soil testing results and fertiliser recommendations required by Condition 11 within the Farm Environmental Management Plan.
13. The Consent Holder shall:
 - (a) manage the application of fertiliser in accordance with:
 - (i) The Code of Practice for Nutrient Management (With Emphasis of Fertiliser Use) Fertiliser Association, 2013, ISBN 978-0-47328345-2"; or
 - (iii) any subsequent updates;
 - (b) not apply fertiliser:
 - (i) to land during the period 1 June - 31 July inclusive;
 - (ii) within 10 m of a surface water body;
 - (iii) within 10 m of any wetland boundary;
 - (iv) within 20 m of any bore;
 - (v) when soil temperature is at or below six degrees Celsius;
 - (vi) when soil moisture capacity is exceeded; and
 - (vii) directly to land within a riparian strip/margin.
 - (c) not apply synthetic nitrogen fertiliser at a rate of more than 190 kg/ha/year on an individual hectare basis and as an average over the landholding.
to pasture or brasica forage crops, and as an average over the landholding.
14. The Consent Holder shall:
 - (a) take representative soil samples at least once every two years and have those samples analysed for Olsen P by a laboratory with IANZ accreditation;
 - (b) if Olsen P levels exceed a range of 26-32 the Consent Holder must reduce the amount of P fertiliser being applied to the landholding to ensure the risk of P loss is reduced; and
 - (c) record the Olsen P results required by (a) and any fertiliser reduction required by (b) in their Farm Environmental Management Plan.

14 (b) - If average Olsen P levels exceed a range of 30 - 34, the consent holder must reduce the amount of P fertiliser being applied to the landholding to ensure the risk of P loss is reduced

It is important to include average here in Condition 14 (b), and the Olsen P from OverseerFM, +/- 2 units.

Nutrient Modelling

Commented [GG2]: In light of the Govt SAP review of the effectiveness of OVERSEER I will leave the inclusion of these conditions up to commissioners discretion

- Remove 15. The Consent Holder must ensure that nitrogen and phosphorus losses to water from farming activities undertaken on the land are maintained at, or below the baseline contaminant loss rates of:
- (a) 54 kilograms per hectare per year nitrogen:
 - (i) as estimated by the four-year rolling average loss rates using OVERSEER FM® version 6.5.0, undertaken in accordance with the generally accepted best practice modelling including the applicable Best Practice Data Input Standards/Overseer FM User Guide.
 - (b) 1.1 kilogram per hectare per year phosphorus:
 - (i) as estimated by the four-year rolling average loss rates using OVERSEERFM® version 6.5.0, undertaken in accordance with the generally accepted best practice modelling including the applicable Best Practice Data Input Standards/Overseer FM User Guide; and
 - (ii) information from published New Zealand and Overseas research to estimate the additional phosphorus loss mitigation, beyond that modelled in Overseer, that is likely to occur as a result of the mitigation being implemented in accordance with the FEMP required under this resource consent.

Through my evidence I have proposed that Conditions 15 to 20 be removed.

For the purposes of this resource consent, the four-year rolling average is defined as the average of the most recent four consecutive years' results starting from 1 July 2023.

- Remove 16. Each and every year for the duration of this consent, using the current version of OverseerFM and in accordance with the generally accepted best practice modelling and the current Best Practice Data Input Standards, the Consent Holder shall:
- (a) model the nitrogen and phosphorus loss rates for the previous year from 1 July to 30 June inclusive;
 - (b) calculate the four-year rolling average of nitrogen and phosphorus loss rates; and
 - (c) re-model the baseline contaminant loss rates specified in condition 14 in the current version of Overseer.
- Remove 17. The re-modelled baseline contaminant loss rates, modelled in accordance with Condition 16(c) shall supersede and replace the baseline contaminant loss rates specified in condition 15.
- Remove 18. A report must be provided to the Consent Authority by 30 September each year summarising the results of Overseer nitrogen and phosphorus loss modelling required by condition 16. The report must include:
- (a) a review of the Overseer input data to ensure that the annual nutrient budget reflects the farming system;
 - (b) an explanation of any differences between that nutrient budget and the annual nutrient budget of all previous years of farming undertaken under this consent;
 - (c) a comparison of the four-year rolling average nitrogen and phosphorus losses with the applicable baseline contaminant loss rates; and
 - (d) the names and summaries of the relevant qualifications and experience of the person(s) who prepared and (if relevant) reviewed the nutrient budget.

Remove 19. All nutrient loss modelling required by this consent must be undertaken by a person who is a Certified Nutrient Management Advisor (CNMA) under the Nutrient Management Advisor Certification Programme (NMACP).

Remove 20. The Consent Holder may use an alternative model that has been demonstrated to be equivalent to Overseer provided:

- (a) the evidence to demonstrate equivalence is provided to the Consent Authority at least six months prior to submitting the relevant annual report as required by condition 18; and
- (b) the use of the alternative model is approved by the Chief Executive of the Consent Authority.

Mitigation Measures

21. The Consent Holder shall undertake maintenance of the existing and any new dairy lanes to ensure they are contoured to ensure that any run-off occurs onto vegetated areas where it will not enter any surface water body.

22. The Consent Holder must manage the dairy lanes so that agricultural effluent and effluent sludges from the lanes does not:

- (a) accumulate in gateways;
- (b) accumulate in paddocks; or
- (c) result in the ponding, pooling, overland or lateral flow of any effluent or sludge beyond the dairy lane.

23. Prior to the exercise of this consent, the Consent Holder shall inspect all bridges and culverts and, where necessary, undertake improvements to the structures to ensure that there is no runoff of agricultural effluent to surface water.

24. Except for crossings of surface waterways, the Consent Holder shall not construct any new dairy lanes within 10 metres of a surface waterbody.

25. Any newly constructed dairy lanes shall have and maintain a 3 metre wide vegetated buffer to mitigate phosphorus run off to surface waterways.

Targeted Mitigations

26. The Consent Holder shall:

- (a) install any new permanent fencing of any unfenced or temporarily fenced surface waterbodies with a minimum 3-metre buffer, and written confirmation, along with date stamped photos, of the new fencing provided to the Consent Authority (EScompliance@es.govt.nz) by (date); and
- (b) plant approximately XXXm of riparian strips, and written confirmation, along with date stamped photos, of the riparian planting provided to the Consent Authority (EScompliance@es.govt.nz) by (date). (b) not relevant to this proposal. Proposed remove.

27. The Consent Holder shall:

- (a) permanently fence the Critical Source Area to exclude stock access, at or about NZTM2000 XXX, as per Appendix 2; and 27 (a) not relevant to this proposal. Proposed remove.

Commented [GG3]: If consent was to be granted these conditions would require specific application related details.

- (b) provide written confirmation, along with date stamped photos, of the permanently fenced Critical Source Area to the Consent Authority (EScompliance@es.govt.nz) by (date). 27 (a) not relevant to this proposal. Proposed remove.

28. The Consent holder shall prepare and implement a Riparian Planting Plan for the farm that includes the use of native plants. This plan shall be prepared within six months, and begin being implemented within 12 months, of the consent being granted and be incorporated into the Consent Holder's Farm Environmental Management Plan required by Condition 33. The plan required by this condition shall be provided to Te Ao Marama Inc (office@tami.maori.nz).

The consent holder has not proposed a riparian planting plan. See my brief of evidence.

29. The Riparian Planting Plan required by Condition 28 shall include, but not be limited to the areas below:

- (a) the planting of 5.5ha area between the dairy shed and Gap creek at or about NZTM2000 1201609E 4890766N.
- (b) the planting of both sides of the waterway that runs from (location), beginning at or about NZTM XXX and finishing at or about XXX, as per Appendix 2;
- (c) the planting of both sides of the waterway that runs from (location), beginning at or about NZTM XXX and finishing at or about XXX, as per Appendix 2.

30. When stock are being break-fed and/or intensively winter grazed on the dairy platform/landholding, as described in Condition 8, the Consent Holder shall:

- (a) back fence the stock to prevent stock entering previously grazed areas;
- (b) progressively graze stock from the top of the slope to the bottom of the slope or leave a 20 metre 'last bite' strip at the base of the slope;
- (c) use portable feeders when supplementary feed is used;
- (d) provide transportable water troughs in or near the areas being grazed;
- (e) ensure critical source areas within the area being grazed remain uncultivated and ungrazed;
- (f) ensure that individual mob sizes being winter grazed do not exceed a maximum of 120 cattle; and
- (g) a vegetated strip is maintained in, and stock excluded from the outer edge of the bed of any surface waterbody (excluding ephemeral rivers) and any wetland for a distance of at least 5 metres (g) appears to be a duplicate of (h). Propose to remove (g).
- (h) maintain a 10m buffer from all waterways to winter forage crops (grazed 1 May to 30 September), where the buffer will be uncultivated and retained in pasture.

31. Following intensive winter grazing on all areas of the landholding, the Consent Holder shall re-sow at the earliest opportunity based on paddock suitable conditions and as soon as practicable to minimise the amount of time that bare ground is exposed.

32. The Consent Holder shall cultivate;

- (a) with the contour of the land being used for cultivation and shall not cultivate up and down the slope; and
- (b) in accordance with Rule 25(a) of the Proposed Southland Water and Land Plan (Decisions Version), or any subsequent replacement versions.

Farm Environmental Management Plan

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

34. The FEMP required by Condition 33 shall also include, but not be limited to:
- (a) a site map showing the location of critical source areas; physiographic zones; permanent or intermittent rivers, streams, lake, drains, ponds or wetlands; where known the location and depth of any subsurface drainage systems including outlets, riparian vegetation and fences adjacent to waterways and stock access points across waterways;
 - (b) details of the implementation and maintenance of mitigation measures required by the conditions of this consent;
 - (c) details of the implementation and maintenance of Good Management Practices, including adoption of changing industry good management practices. This includes where the implementation of these is to avoid, remedy or mitigate any farm specific environmental risks to water quality shown through any monitoring undertaken on the property voluntarily or as required by the conditions of this consent;
 - (d) a review of the data obtained from the monitoring undertaken in accordance with the Farm Environmental Management Plan and any changes made, or to be made, as a consequence of that monitoring.

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

35. The FEMP shall be reviewed at least once each milking season and can be modified at any time by the Consent Holder; and either:
- (a) an updated version shall be provided to the Consent Authority by 31 May each year; **or**
 - (b) the Consent Holder must notify the Consent Authority in writing that no changes have been made by 30 September each year.

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

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

Auditing

37. The Consent Authority may require the Consent Holder to have the farming activity as authorised by this consent independently audited, in accordance with Appendix 2, by a person who is a Certified Nutrient Management Advisor or Farm Environmental Plan Auditor or a Suitably Qualified Person who has demonstrated an equivalent level of expertise.

Lapse and Review

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

for the **Southland Regional Council**

Commissioner Alan Cubitt
Independent Hearing Commissioner

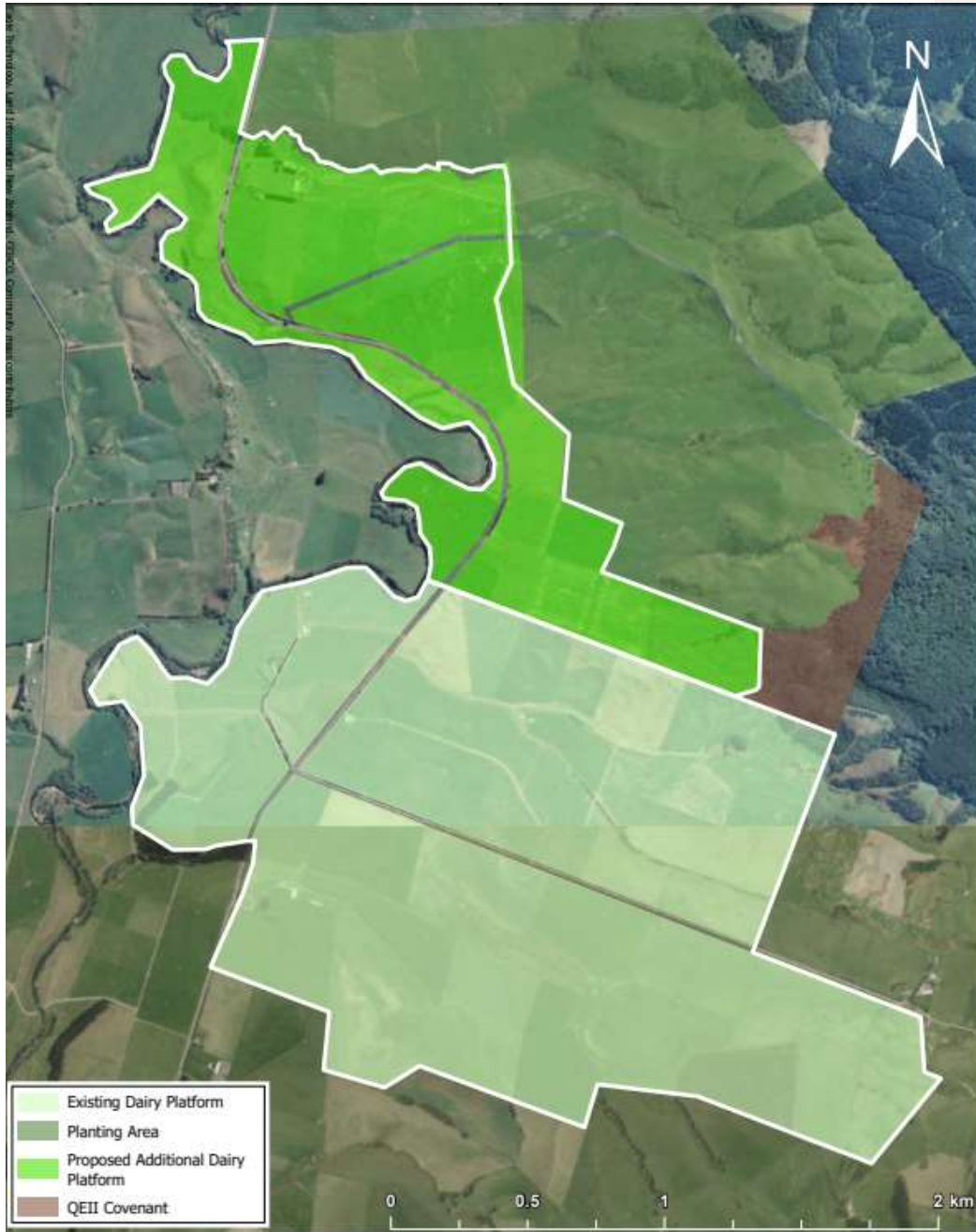
Notes:

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

Due date	Condition number	Requirement
30 September (Annually)	18	A report must be provided to the Consent Authority by 30 September each year summarising the results of Overseer nitrogen and phosphorus loss modelling required by condition 16.
Plan submitted to Consent Authority within 6 months, and begin being implemented within 12 months of the consent being granted.	28	Consent holder shall prepare and implement a Riparian Planting Plan for the farm that includes the use of native plants. This has not been proposed by the applicant.
31 May each year (Annually)	35	Updated FEMP.

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

Appendix 1



Appendix 2: Auditing Criteria

1. The audit shall assess the performance of the farming activity occurring on the property against:
 - (a) the objectives and good management practices specified in the FEMP;
 - (b) any additional mitigation measures implemented on the property either voluntarily or as required by the conditions of this consent; and
 - (c) the baseline contaminant loss rates specified in Condition 14 and 16.
2. The audit must determine the level of confidence of achieving each objective set out in the FEMP. This level of confidence shall be categorised into the following:
 - **High** - the objective is probably being achieved
 - **Medium** - the objective is possibly being achieved
 - **Low** - it is unlikely that the objective is being achieved.
3. The audit shall record the justification for each level of confidence assessment, including noting the evidence, or lack of, used to make the determination.
4. Where an objective has received a Medium or Low level of confidence, the audit shall include the actions required for the farm to meet the objective and a timeframe whereby these actions need to be undertaken.
5. Where an objective has received a Medium level of confidence (and the farm has received no Lows), the audit shall also determine whether or not the farm is on-track to achieve the objectives.
6. The audit report shall be provided to the Consent Authority within three months of the date of the Consent Authority issuing a requirement to undertake the audit.
7. The frequency of audit requirements may be annually except where, for two consecutive years, an audit report has concluded that all objectives are probably being achieved (received a high level of confidence). In that situation no further audit will be required for at least three years.
8. Where the audit identifies actions required to be undertaken for the farm to meet the objective the Consent Holder must implement these actions within the timeframes stated in the audit.
9. Upon completion of any changes made and/or mitigations implemented as required by the audit, the Consent Holder shall confirm in writing, including photographs (date and time stamped) to the Consent Authority that these actions have been completed and implemented.
10. Upon completion of all the changes made and/or mitigations implemented as identified in the audit, the Consent Holder must ensure the measures are properly maintained, continue to function and are not removed or altered for the duration of this consent (and any subsequent variation versions).

Commented [GG4]: Remove if nutrient modelling conditions are not included

APPENDIX C - DRAFT FORESTRY RIGHT

Easement instrument to grant easement or *profit à prendre*

(Section 109 Land Transfer Act 2017)

Grantor

IFS GROWTH LIMITED

Grantee

FAWNA FARMS LIMITED

Grant of Easement or *Profit à prendre*

The Grantor being the registered owner of the burdened land set out in Schedule A, **grants to the Grantee** (and, if so stated, in gross) the easement(s) or *profit(s) à prendre* set out in Schedule A, **or creates** the covenant(s) **set out** in Schedule A, with the rights and powers or provisions set out in the Annexure Schedule(s).

Schedule A

Continue in additional Annexure Schedule, if required

Purpose of easement, or <i>profit</i>	Shown (plan reference)	Burdened Land (Record of Title)	Benefited Land (Record of Title) or in gross
Forestry Right	As outlined in black on the map attached to the First Schedule	Part of Record of Title Forestry Block 288.7 ha approx	Record of Title proposed new dairy unit 370.9 ha plus 165.9 ha

Easements or *profits à prendre* rights and powers (including terms, covenants and conditions)

Delete phrases in [] and insert memorandum number as required; continue in additional Annexure Schedule, if required

The implied rights and powers are hereby substituted by the provisions set out in the Annexure Schedule

Covenant provisions

Delete phrases in [] and insert Memorandum number as required; continue in additional Annexure Schedule, if required

The provisions applying to the specified covenants are those set out in the Annexure Schedules.

Insert instrument type

Easement Instrument to grant easement or profit a prendre, or create land covenant

Continue in additional Annexure Schedule, if required

1. BACKGROUND

- 1.1 The Grantee is the owner of the Benefited Land on which the Grantee operates a dairy farm. The Grantor is the owner of the Burdened Land and has established a forest on the Burdened Land.
- 1.2 Prior to the establishment of the Forest, the Burdened Land was used as a dairy support, sheep and beef trading property.
- 1.3 Prior to the establishment of the Forest the Grantee purchased from the Grantor 165.9 hectares of adjoining land from the Grantor which previously formed part of the Burdened Land but now forms part of the Benefited Land.
- The Grantee has been granted Resource Consents from Environment Southland to increase the peak number of cows milked on the Benefited Land from 900 to 1200 cows (*"the Resource Consents"*).
- 1.4 Environment Southland granted the Resource Consents sought (in part) on the basis that there would be a reduction in both nitrogen and phosphorous loss to water (*"Total Nutrient Loss"*) over the Benefited Land and the Burdened Land combined directly as a result of:
- (a) A reduction in total grazed area as a result of the conversion of the Burdened Land to forestry.
 - (b) An overall reduction in stocking capacity as measured by Revised Stock Units across both the Burdened Land and Benefited Land.
 - (c) Removal of stock access to waterways on the Burdened Land.
 - (d) Vegetation buffers on the Burdened Land between existing vegetation and waterways.
- 1.5 The Total Nutrient Loss has been assessed by calculating the total nutrient losses on both the Benefited Land and the Burdened Land prior to the establishment of the Forest on the Burdened Land and comparing that with the total nutrient losses on the Benefited and Burdened Land after the establishment of the forest on the Burdened Land. A reduction in nutrient loss is achieved by off-setting the reduction in nutrient loss on the Burdened Land after establishment of the Forest and off-setting that nutrient loss against any increase in nutrient loss as a result of the increase in cow numbers from 900 to 1200 on the Benefited Land (*"Nutrient Offset"*).
- 1.6 In order to rely on this Nutrient Offset to support the grant of the Resource Consents, the Grantee has entered into an agreement with the Grantor (supported by consideration) for the Grantor to grant to the Grantee this forestry right on the terms set out in Sections 2 and 3 below.

- 1.7 The objective of the Forestry Right is to give the Grantee a registered interest in the Forest to ensure that the Forest is maintained and managed as prescribed during the term of any Resource Consents granted on the Benefited Land for farming purposes and for the Grantee to have the exclusive right to utilise at the Grantee's sole discretion the Nutrient Offset created by the establishment and maintenance of the Forest.

2. DEFINITIONS AND INTERPRETATION

2.1 Definitions:

Act means the Climate Change Response Act 2002;

Business Day means a day (other than a Saturday or Sunday) on which banks are open for business in Invercargill;

Commencement Date means 30 June 2022;

Default Interest Rate means 10% per annum;

Discharge Permit to discharge farm dairy effluent to land and to discharge contaminants associated with the conversion of land to dairy farm land;

Emissions Trading Scheme means the Emissions Trading Scheme established under the Climate Change Response Act 2002 or any legislation passed in substitution to such Act;

Force Majeure Event means any circumstances beyond the reasonable control of the Grantee including, but not limited to, storm, tempest, flood, act of God, riot or civil disturbance, war, military action, insurrection, act of any governmental or military agency acting under actual or assumed authority, expropriation, delay in transport, failure of any source of supply, acute or unusual material shortages, strike, lockout, labour disturbances or lawful or unlawful labour dispute and any other like cause. For the avoidance of doubt, an inability to meet a payment due by the Grantee under this Forestry Right because of a lack of funds will in no circumstances be treated as a Force Majeure Event;

Forest means the area immediately in and around the Trees on the Land as outlined in block on the map **attached** to the First Schedule;

Forestry Right means this forestry right, created pursuant to the Forestry Rights Registration Act 1983;

Forestry Operations has the meaning as defined in clause 0;

GST means goods and services tax charged under the Goods and Services Tax Act 1985 and any tax imposed in substitution for that tax;

Land means the land contained in Record of Title [];

Native Trees means all the native trees and timber (whether standing or otherwise) on the Land at the Commencement Date;

Nutrient Offset has the meaning in clause 1.5;

Resource Consents means land use consent and associated discharge permit to use land for dairy farming and intensive grazing.

Revised Stock Unit is defined as an animal with an intake of 6000 MJ ME intake per year. Revised Stock Unit is used to assess in comparing a farm's carrying capacity.

RMA means the Resource Management Act 1991;

Term means the period commencing on the Commencement Date and expiring on the date 22 years after the Commencement Date or such lesser period, if this Forestry Right is terminated in accordance with its provisions. Provided however the Grantee shall have a right, at the Grantee's option, to extend the term for such period as the Land remains planted in Forest.

Total Nutrient Loss has the meaning in clause 1.4;

Water Permit to take and use groundwater for dairy operation;

Trees means all the trees and timber and any other exotic and fast growing species of trees and timber whether standing or otherwise on or in the Forest at the Commencement Date together with any trees planted in the Forest by the Grantee pursuant to clause 3, but excluding the Native Trees (if any).

3. CREATION OF FORESTRY RIGHT

3.1 In consideration for a payment by the Grantee of the sum of \$10.00, **the Grantor hereby creates in favour of the Grantee** for the Term the right to:

- (a) receive a share of the proceeds of the NZU's under the New Zealand Emissions Trading Scheme attributable to the Forest, or the proceeds from the harvest of the forest to a maximum sum of \$1.00, to be paid at the end of the Term; and
- (b) the exclusive right to use and rely on the Nutrient Offset as described in clause 1.5.

3.2 **The Grantee acknowledges and agrees that:** it takes this Forestry Right subject to all existing easements, covenants, encumbrances or other interests including those noted against the titles to the Land as at the date of this Forestry Right and including but not limited to any electricity transmission rights.

4. CARBON ACCOUNTING

4.1 The Grantor has registered the Forest under the Emissions Trading Scheme so as to accrue and incur all benefits, liabilities and obligations under the said scheme.

4.2 The Grantee will not register the Forest under the Emissions Trading Scheme.

5. GRANTOR'S COVENANTS

5.1 The Grantor covenants with the Grantee as follows:

Forest Management

- (a) The Grantor shall use its best endeavours to plant and sustain a crop of healthy trees in compliance at all times with the National Environmental Standards for Plantation Forestry (NES PF).
- (b) That the forest will at all times meet the requirements of the New Zealand Emissions Trading Scheme and shall comprise species that can reach at least 5 metres in height when mature in this location and have (or can be expected to reach) crown cover of more than 30% in each hectare of forest.

Use of the Land

- (c) the Grantor shall use the Land only in accordance with the terms and conditions in this Forestry Right.
- (d) The Grantor shall be entitled to use on the Land for any forestry purpose reasonably required by it, any sand, clay, gravel, shingle, rock and the Trees located in on or on top of the Land. The Grantor may only use such materials for the building and maintenance of roads, bridges, culverts, fences, skids and any buildings and erections for such purpose.
- (e) The Grantor will not allow the Land to be grazed by any domestic animal during the term of the Forestry Right.
- (f) The Grantor shall not apply any fertiliser to the land.

Approval to Use of Benefited Land

- (g) The Grantor will, if requested by the Grantee, give an affected party approval under the Resource Management Act 1991 (or any equivalent replacement legislation) for a renewal of the Resource Consents in respect to the Benefited Land.

Damage and nuisance

- (h) the Grantor shall exercise the rights, liberties and powers granted by this Forestry Right in such manner so as to cause as little damage, nuisance or injury as is reasonably practicable given the use of the Land for forestry purposes to the owners or occupiers of any adjoining or neighbouring land. For the avoidance of doubt, the exercising of the Grantor's rights in this Forestry Right in accordance with all applicable laws or regulations will not be a breach of this clause;

Compliance with Statutes and Regulations

- (i) the Grantor shall comply with all relevant statutes, bylaws, permits, consents, requisitions and approvals affecting the Grantor's use of the Land or the Grantor's activities/operations under this Forestry Right or on the Land and in particular, but by way of example only, the Health and Safety at Work Act 2015. As appropriate, the Grantor shall put in place

appropriate policies and procedures to ensure compliance with such statutes, regulations, bylaws, permits and consents;

- (j) the Grantor, at its own cost, shall obtain and maintain and do all things necessary to obtain and comply with all necessary regulatory permits, consents and approvals, including all necessary resource consents, in connection with the Grantor's use of the Land;

Harvest

- (k) the dates upon which the Trees reach maturity and are subsequently ready for felling will be determined at the sole discretion of the Grantor.

- (l) that the Grantor shall at all times indemnify the Grantee against:

- (i) any and all actions, claims, demands, awards and proceedings of every nature and kind made or brought against the Grantee; and
- (ii) any and all reasonable and proper losses, damages, costs or expenses suffered or incurred by the Grantee,

which are based upon, or arise out of, any act or omission on the part of the Grantor, as a result of any breach by the Grantee in respect of the harvesting of the Trees.

- (m) the Grantor shall pay for all general, water, special and other rates, charges, levies, duties, impositions, fees, taxes (including land tax or any other similar tax on the ownership of land), carbon taxes (or similar, including any deemed greenhouse gas emission accountabilities), assessments and outgoings of any nature whatsoever made or due in respect of the ownership, use or occupation of the Land;

- (n) the Grantor shall comply with the provisions of all statutes, ordinances, regulations and by-laws in any way relating to the use of the Land by the Grantor;

- (o) the rights created under this Forestry Right have been created solely and exclusively in favour of the Grantee and that during the Term, the Grantor shall not create any other forestry right in respect of the Land, or any other right or interest in the Land that might prejudicially and materially affect the Grantee's Forestry Right, without obtaining the Grantee's prior written consent, such consent shall not be unreasonably withheld;

6. RISK

- 6.1 Pending the expiry or earlier termination of this Forestry Right, any loss, damage or destruction to the Trees or improvements on the Land will be at the risk of the Grantor.

7. FORCE MAJEURE

- 7.1 If a Force Majeure Event prevents the performance by the Grantor or the Grantee of any of its obligations under this Forestry Right, the performance of that

obligation is to be suspended until the cause of the Force Majeure Event ceases to prevent performance of that obligation. The party claiming that a Force Majeure Event is to notify the other in writing as soon as reasonably possible after the occurrence of the cause of the Force Majeure Event.

- 7.2 Notwithstanding the provisions of clause 7.1, if for any reason, it appears that the subsistence of the cause of the Force Majeure Event will operate to frustrate this Forestry Right then either party may apply to the other for the termination of this Forestry Right. If the other party agrees to such termination, then the terms of the termination are to be agreed between the parties and if the parties fail to agree on such terms then the matter is to be determined pursuant to clause 8.

8. DISPUTES

- 8.1 A party to this Forestry Right shall not commence Court proceedings or arbitration relating to any dispute arising from this Forestry Right except where that party seeks urgent relief from a court. Any matters in dispute whether as to construction of this Forestry Right or otherwise shall be dealt with first pursuant to clause 8.2 and, if still unresolved, pursuant to clause 8.3.

- 8.2 If any dispute arises between the parties under this Forestry Right, either party may give formal written notice of the matters in dispute to the other party and refer them for formal discussion between the parties in an attempt to resolve the dispute. Within 5 Business Days after a party has referred a matter for discussion under this process and the other party has received a notice of the matters in dispute, each party will appoint a representative to attend such discussions. The parties may if they wish appoint a mediator to assist in the determination of the dispute. The terms of any settlement shall be recorded in writing and signed by both representatives. If the parties are unable to resolve the dispute within a period of 20 Business Days after both parties have notice that the matters have been referred to this resolution process then either party may then refer the matter to arbitration in accordance with clause 8.3.

- 8.3 Subject to the parties having exhausted the process in clause 8.2 and still being unable to resolve the dispute, the matters in dispute may be referred by either party to arbitration in accordance with the Arbitration Act 1996, and in that event shall be determined by an arbitrator appointed by the parties or, failing agreement within 20 Business Days after the matter was referred to arbitration, by a person nominated by the President of the New Zealand Law Society, who shall act as arbitrator.

- 8.4 The award of the arbitrator under clause 8.3 shall be final and binding on both parties and the cost of any arbitration proceeding shall be borne as the arbitrator may direct.

9. PROFIT A PRENDRE

- 9.1 The rights granted to the Grantee in this Forestry Right are expressly declared to be in the nature of a profit a prendre in gross over the Land. This Forestry Right is to be binding upon and is to endure for the benefit of the Grantor and the Grantee and their respective successors, permitted assigns and transferees.

10. GST ON PAYMENTS

- 10.1 All payments stated in this Forestry Right are exclusive of GST and the party making payment will pay GST in addition to such payments, subject to receiving an appropriate GST invoice from the other party.
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11. NOTICES

- 11.1 Any demand or requirement of notice under this Forestry Right will be in writing and will be signed by or on behalf of the party giving the demand, requirement or notice and will be deemed to have been duly served on the other party, if:

- (a) delivered by hand or sent by post to the intended recipient's address as set out below or to such other address as may have been notified by one party to the other party from time to time; or
- (b) sent by email to the intended recipient's email address as set out below or to such other email address as may have been notified by one party to the other party from time to time, and if the recipient acknowledges receipt (whether by way of an automated message or otherwise).

To the Grantor:

C/-

Tel:

Email:

To the Grantee:

C/-

Tel:

Email:

- 11.2 Any notice transmitted by email or delivered after 5.00pm on a Business Day, or at any time on a non Business Day, will be deemed received at 9.00am on the next Business Day (being, in each case, the time of day at the intended place of receipt of that notice).
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12. GENERAL

- 12.1 **Registration:** As soon as practicable the Grantee will, at its own expense, take all steps necessary to register this Forestry Right pursuant to the provisions of the Forestry Rights Registration Act 1983. The Grantor will provide to the Grantee all reasonable assistance requested by the Grantee to permit such registration.
- 12.2 **Governing Law:** The law applicable to this Forestry Right will be the law of New Zealand. The parties irrevocably and unconditionally agree to submit to, and to be bound by, the non-exclusive jurisdiction of the Courts and tribunals of New Zealand.
- 12.3 **Waiver:** No waiver or acquiescence by either party in respect of one breach on one occasion of any obligation in this Forestry Right shall operate as the waiver of the same breach on any subsequent occasion or as a waiver of any other covenant or stipulation contained or implied in this Forestry Right.

- 12.4 **Costs:** Unless otherwise stated in this Forestry Right, each party will bear its own costs and expenses in connection with the implementation of this Forestry Right.
- 12.5 **Severability:** Each provision of this Forestry Right is individually severable. If any provision is or becomes illegal, unenforceable or invalid it is to be treated as being severed from this Forestry Right, but the rest of the Forestry Rights will not be affected.

DRAFT

FIRST SCHEDULE - MAP OF LAND

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