

BEFORE THE HEARING PANEL OF SOUTHLAND REGIONAL COUNCIL

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

And

In the matter Applications for resource consents by:

TITIPUA LIMITED PARTNERSHIP

Applicants

EVIDENCE OF MATILDA BALLINGER

24 March 2022

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QUALIFICATIONS AND EXPERTISE

1. My full name is Matilda Jane Ballinger and I am a Planner at Landpro Limited, a firm of consulting planners, scientists, surveyors and engineers. I hold the qualifications of BSc (Earth Science and Marine Science, University of Auckland) and MSc (Antarctic and Marine Science, University of Tasmania).
2. I have been employed by Landpro since May 2019 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.
3. I also acknowledge that I have been assisted by my colleague Dr Mike Freeman, Senior Scientist/Planner, 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 Titipua Limited Partnership to use land for dairy farming that was not occurring as of June 2016, to discharge farm dairy effluent to land, to take and use groundwater and to use land for a feed pad/lot.

Other sources of information

5. I have considered the following information:
 - (a) The application and associated assessment of environmental effects (AEE) prepared by me. As well as s92 reponse, associated application for discharge and water permit renewal, and the application and associated assessment of environmental effects for a herd home wintering barn, prepared by me.
 - (b) The S42A report by Ms Jade McRae.
 - (c) The Overseer modelling reports by Ms Topham, her evidence and the audit undertaken by Irricon.
 - (d) Brief of evidence from Stephan Koretweg on behalf of Titipua Partnership Limited.
 - (e) Submissions from Forest and Bird and Te Ao Marama Inc.

CODE OF CONDUCT FOR EXPERT WITNESSES

6. I have read the Code of Conduct for Expert Witnesses within the Environment Court Consolidated Practice Note 2014 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
 - Existing environment
 - 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 11th May 2021, 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:

The application site is located at 354 Hedgehope Block Road, Hedgehope. The site comprises a 181.5 hectare dairy platform owned by the Applicant (the existing dairy platform) and a 84.2 block known as the Schrama Block, also owned by the applicant. The property is located within the Makarewa Surface Catchment. The applicant purchased a neighbouring sheep block in mid 2020 (the Schrama Block) and wishes to incorporate this 84.2 ha block into the dairy platform.

9. Both properties are generally flat to undulating in slope and is underlain by artificial drainage through much of the property. The existing dairy platform has been run as a dairy farm (including winter grazing) by the applicant since 2015. The detail of the farming system on the Schrama block was not known due to information being unavailable from the vendor, but broadly it was run as a sheep and beef block.
10. Soils on the property are comprised of Pukemutu, Makarewa and Arthurton soils which are known to have various vulnerabilities as indicated in the AEE submitted in support of the application, including a severe vulnerability to structural compaction and severe vulnerability to waterlogging.
11. Physiographic zones on the property are comprised of Lignite/Marine Terraces, Peat Wetlands and a very small component of Gleyed. Contaminant loss to surface water is the main water quality risk associated with these zones, via both artificial drainage in flatter areas and overland flow in sloping areas.
12. The Environment Southland GIS system and topographical maps show that the dairy platform is located within the Titipua Stream catchments. I note that these are both part of the Oreti catchment. A small proportion of the Schrama Block may flow into the Hedgehope catchment. There are a number of tributaries of the Titipua Stream on the property.

SUMMARY OF APPLICATIONS

13. 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 and to use land for a feed pad/lot and herd home. 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 dairy platform above what existed at 3 June 2016 to include a 84.2 ha block.
 - Discharge Permit –To discharge dairy shed effluent from 600 cows onto 88 ha of land via low rate irrigation and slurry tanker and umbilical system as a contingency.
 - Water Permit - To abstract 72,000 L/day of groundwater. This abstraction of groundwater is for dairy shed washdown and stock drinking water for 600 cows.
 - Land use Consent – To use land for a feed pad to hold 120 cows during spring and adverse weather. And to use land for a herd home to hold up to 490 cows during adverse weather and 200 cows full time during winter.
 - Land Use Consent – To use land for a new agricultural effluent facility to hold effluent produced in the herd home.

14. 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 with industry-accepted good practice.
15. Minor (within scope) changes made to the proposal since its submission in May 2021 are reflected in the modelling and focus on measures to reduce N and P loss. These are detailed in the application for a herd home, dated 6th December 2021 and file notes by Ms Topham.

Overseer Modelling

16. Overseer (OverseerFM) modelling has been used to model the average management of the dairy platform during the 17-18, 18-19 and 19-20 seasons, the Shrama block management using data from Beef and Lamb NZ and a proposed dairy platform that will operate if consent is granted. Overseer FM version 6.4.2 has since been released (20 December 2021) and nutrient budgets have been re-run in this version. A summary of Overseer outputs for the property is detailed in Ms Topham's evidence.
17. The overall results are summarised in the following table:

Table 1 Summary of predicted nitrogen and phosphorus losses in the current and proposed systems under Overseer version 6.4.2

	Current Farm System	Proposed Farm System	Reduction
Area (ha)	265.7	265.7	
N loss to water(kg/yr)	11,809	10,789 (10,647 modelled plus 603 baleage grass wintering minus 461 wetlands calculated outside Overseer FM)	8.6%
N Loss/ha (kg/ha/yr)	44	41	
P loss to water (kg/yr)	649	606 (623 modelled minus 5 baleage grass wintering minus 12 wetlands calculated outside Overseer FM)	6.6%
P loss/ha (kg/ha/yr)	2.4	2.3	

18. The overall modelling of the proposed farming system at the dairy platform indicates that nitrogen losses to water are predicted to reduce by approximately 8.6% compared to the baseline combined model. Phosphorus losses to water are estimated to reduce by approximately 6.6% compared to the

baseline combined model and additional mitigations calculated outside of Overseer. The outside of Overseer calculations, relating to the wetland component have been peer reviewed by Dr. Chris Tanner of NIWA.

Discharge Permit

19. A new discharge permit is sought to replace the existing discharge permit to allow for the discharge of farm dairy effluent from 600 cows. This effluent will be discharged across a total area of 88 ha. Cow numbers are not increasing beyond what is already consented by AUTH-301081-V1.
20. Effluent storage infrastructure at the property consists of sludge beds and a lined effluent pond.
21. 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.
22. Effluent will be discharged to land via low rate travelling irrigator, and occasionally a slurry tanker or umbilical system. The low rate travelling irrigator will 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 C soils (sloping land). Although in reality the Category C soils are not sloping land and are more likely to fit into Category A soils.

Water Permit

23. A new water permit is sought to replace the existing water permit to allow the abstraction of 72,000 L/day. The abstraction rate will be less than 2 L/sec. The water will be used for stock drinking water and shed wash down water from 600 cows. This will be abstracted from bore E46/1068.

Land Use Consent for Farming

24. A land use consent is sought for the proposed farming activity which includes all farming activities located on the land.
25. The proposal is to increase the dairy platform area by 84.2 ha. There is no increase in cows from what is already consented.

Land Use Consent for Feed pad/Herd Home

26. A land use consent is sought for the use of a 1300 m² feed pad that will be used by 120 cows in early spring and during adverse weather conditions. The feed pad has a wood chip base and effluent is captured by drains and collected in a concrete tank and spread as solid waste.
27. A land use consent is sought for the use of a herd home to house up to 490 cows year round during adverse weather, and to house 200 cows for 24 hours a day during winter. Effluent from the herd home will be collected in concrete bunkers underneath the floor of the herd home (see below).

Land Use Consent for a new effluent storage facility

28. A land use consent is sought for the use of a new effluent storage facility. Concrete bunkers underneath the herd home will store effluent from the herd home. The three containment bunkers will have a storage capacity of 834 m³. Liquid effluent stored in these bunkers will evaporate and solids will be spread as a permitted activity (Rule 38).

COMMENTS ON SECTION 42A REPORT

29. I have read the Section 42A Report prepared by Ms Jade McRae. The reporting officer ultimately concludes that consent should be granted, subject to a number of conditions. Ms Jade McRae identified a number of specific issues to be considered:

- (a) The adverse effects from the proposed activities on water quality;
- (b) The effects on water quantity
- (c) The effects on soil health
- (d) The effects on odour
- (e) The effects on the Oreti River

I have endeavoured to clarify and/or address the specific concerns raised as well as other relevant matters.

30. *Effects from the proposed activities on water quality*

Ms Topham addresses the comments by Ms McRae regarding the Overseer modelling and the calculations done outside of Overseer in an effort to quantify the effects of the proposal.

31. I agree with Ms McRae's comments on Nitrogen

32. I note that when discussing phosphorus Ms McRae notes that '*these performance predictions do not apply for constructed wetlands whose main source is sub-drainage containing predominantly dissolved forms of phosphorus*'. This was an oversight on our part and Ms Topham's updated calculations now

reflect a system where sub-drainage is present. These calculations have been verified by Dr. Chris Tanner of NIWA. A memo detailing this has been attached to Ms Topham's evidence. This has resulted in a slight reduction in the calculated effectiveness of the wetland in reducing phosphorus contaminant loss to water from what was originally estimated. A significant reduction in phosphorus load to water, and consequential improvement in water quality would result. This reduction in phosphorus is predicted to be approximately 6.6%.

33. I also note that in consultation with Te Ao Marama Inc. the applicant has agreed to develop a riparian planting plan and implement this plan over the lifetime of the consent. This riparian planting, although not fully developed yet is likely to improve the attenuation of phosphorus in the riparian margins resulting in an additional reduction in phosphorus and a subsequent improvement in water quality.
34. I agree with Ms McRae's comments on microbes and sediment loss.
35. I agree with Ms McRae's comments on water quantity. The abstraction is less than 2L/s, therefore no significant hydraulic connection is expected. Over-allocation from the Makarewa groundwater management zone is not expected. I also note that no increase in water allocation has been applied for, so the proposal is within the scope of the existing environment.
36. I agree with Ms McRae's comments on soil health. I note that the minimum requirements for the size of the effluent disposal area are 4 hectares per 100 cows, and the recommended is at least 8 ha per 100 cows. The 88ha discharge area equates to 14 ha per 100 cows, significantly above the recommended guidelines.
37. I agree with Ms McRae's comments on odour. The agreed upon draft consent conditions will ensure that the risk of adverse effects from odour and spray drift on surrounding landowners and occupiers will be minimal.
38. I agree with Ms McRae's comments on the Oreti River. I appreciate that Ms McRae is not a suitably qualified person to make conclusions on the scale of potential effects on the Mauri of waterbodies and her note that Te Ao Marama Inc has on behalf on Waihopai Runanga, has concerns on the hauora of the Oreti River. I also note that I am not suitably qualified to make conclusions on these matters. However, the applicant has been working with Te Ao Marama Inc as to how best address and alleviate the concerns raised in their submission, as well as any additional concerns they may have had in regard to the proposal. On the 18th of March, Te Ao Marama Inc on behalf of Waihopai Runanga withdrew their submission and right to be heard provided that a number of consent conditions were included. The application has been formally amended to include these consent conditions and these are further discussed later in my evidence.
39. I agree with Ms McRae's conclusion that the proposal and mitigations proposed will not result in significantly adverse environmental effects. I note, as above, that Te Ao Marama Inc. on behalf on

Waihopai Runanga has formally withdrawn their submission and right to be heard, agreeing that the cultural effects of the proposal will be less than minor, subject to the mitigations being put in place.

40. I agree that groundwater monitoring is not appropriate on the property and agree with Mr Rodway's comments on its suitability.
41. I agree that two compliance inspections carried out on the property per year would be appropriate.

Statutory Considerations

42. Section 3.4 of Ms McRae's S42A report details a comprehensive planning assessment. I consider that that assessment has been very thorough and I agree with its conclusions. As such I do not repeat the analysis in this evidence.

Part 2 of the RMA

43. I agree with the reporting officer that it is appropriate to refer to Part 2 of the RMA when considering this proposal.
44. I consider the proposal is consistent with Part 2 of the RMA. It seeks to enable the applicants to utilise their land for farming in a way that provides for their social and economic well-being, that 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).
45. The applicant acknowledges and respects the long history and relationship Tangata Whenua have with the area. Noting that TAMI have withdrawn the submission and right to be heard, I consider that the implementation of the proposal will not adversely affect Tangata Whenua values, traditions or taonga.

National Policy Statement on Freshwater Management (2020)

46. I agree with Ms McRae's conclusions and consider 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 to conclude that implementation of the proposal will see a small reduction in contaminant loss to water and that this will make a small contribution to improving water quality. 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 Oreti 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 Ms McRae notes the concerns of Waihopai Runanga and its desire to be heard. This request to be heard at hearing has been withdrawn as Waipoai Runanga consider their concerns to be mitigated with the inclusion of the agreed consent conditions.

47. *Southland Regional Policy Statement (2017)*

48. I agree with Ms McRae's conclusions.

Regional Water Plan

49. I agree with Ms McRae's conclusions.

Proposed Southland Water and Land Plan

50. I agree with Ms McRae's conclusions.

Rule Framework

51. I agree that the overall activity status when bundled is non-complying, therefore, the proposal must pass through one of the section 104D 'gateway tests' before granting consent can be considered under section 104 and section 104B.

52. The application included an assessment against section 104B. The AEE has demonstrated that adverse effects of the activity on the environment will be minor. The AEE policy assessment demonstrated that the application is for an activity that will not be contrary to the objectives and policies of both the relevant operative and proposed regional plans. Therefore, I am confident that the proposal passes through both section 104D 'gateway tests'.

Draft consent conditions

53. I acknowledge and thank Ms McRae for providing a copy of her proposed 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 A.

54. To assist in providing a high level of assurance that the hauora of the Oreti will be maintained or improved, the applicants have amended their application to include the following consent condition and amendments to the draft consent condition proffered by council as follows:

Condition 10: The Consent Holder shall:

(c) not apply synthetic nitrogen fertiliser at a rate of more than 175 kg/ha over a four-year rolling average, and no more than 190 kg/ya in any single year.

Condition X: 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 12 months of the consent being granted and be incorporated into the consent holder's Farm Environmental management plan required by Condition 28; planting works shall be implemented over the duration of the consent and completed at least 6 months prior to the expiry of the consent. The plan required by this condition shall be provided to Te Ao Marama Inc.

Condition 21: The Consent Holder shall:

(a) construct a new herd home winter barn, as detailed in the application, at or about NZTM 1257658E 4869494N;

(b) provide written confirmation, along with date stamped photos, of the fully operational herd home winter barn to the Consent Authority (EScompliance@es.govt.nz) by 1 May 2023.

Condition 22: The Consent Holder shall:

(a) Prior to the exercise of this consent, the a suitably qualified and/or experience person, shall prepare a wetland design plan that includes the use of native plants. The plan must demonstrate that the wetland will be constructed in accordance with the guidelines described in 'NIWA – Technical guidelines for constructed wetland treatment of pastoral farm run-off' and be submitted to Council. The plan required by this condition shall be provided to Te Ao Marama and the wetland shall be constructed within 12 months of the consent commencing.

(b) Reconstruct the existing duck pond into a wetland, in accordance with NIWA's *Technical guidelines for constructed wetland treatment of pastoral farm run-off*, as detailed in the application, at or about NZTM2000 1257230E 4869143N ~~by 1 May 2023~~ within 12 months of the consent commencing.

(c) A suitably qualified and/or experienced person, shall provide written confirmation, along with date stamped photos, of the completed wetland construction to the Consent Authority (EScompliance@es.govt.nz) by 1 June 2023.

Condition 29: The FEMP required by Condition 28 shall also include, but not be limited to:

(d) From May 2023, a section dealing the impact of the operation on climate change, including estimated of Green House Gas emissions and any actions implement to mitigate or offset these impacts.

Consent Duration

55. A duration of 10 years has been sought for all applications. I agree with Ms McRae's conclusions.

MATTERS RAISED BY SUBMITTERS

56. The application for resource consent was publicly notified. Submissions were received from two parties. Further comment has been provided on submissions below.

Party	Position
Te Ao Marama Inc. on behalf of Waihopai Runanga.	Oppose
Forest and Bird	Oppose

57. A opposing submission was made by Te Ao Marama Inc. on behalf of Waihopai Runanga. The applicant has worked with Te Ao Marama Inc. to address the concerns of Waihopai Runanga and to provide certainty to Waihopai Runanga that the proposal will result in positive benefits to water quality and that the hauora of the Oreti River will be improved. Te Ao Marmama Inc. has subsequently withdrawn their submission and right to be heard, provided the agreed upon consent conditions are included. These consent conditions have been detailed above and are included with our recommended amendments to the draft consent condition as attached to this evidence.

58. An opposing submission was made by Forest and Bird. The applicant has worked with Forest and Bird to address their concerns. Forest and Bird has subsequently withdrawn their submission and right to be heard, provided the agreed upon consent conditions are included. These consent conditions have been detailed above and are included with our recommended amendments to the draft consent conditions as attached to this evidence.

59. I note that in consultation with both submitters, the agreed upon consent conditions detailed that the wetland would be constructed within 12 months of the consent commencement. When in discussions with Dr. Chris Tanner it was noted that due to planting seasons the NIWA guidelines¹ suggest planting the wetland over two seasons. With earthworks and embankment/dry areas being planted in the first year and the wet areas being planted in the second year. As such as proffer the following amendment to the agreed upon consent condition.

60. *Condition Y: Prior to the exercise of this consent the consent holder shall prepare a wetland design plan than includes the use of native plants. The plan must demonstrate that the wetland will be constructed in accordance with the guidelines described in 'NIWA -Technical guidelines for constructed wetland treatment of pastoral farm run-off' and be submitted to the Council. The plan required by this condition shall be provided to Te Ao Marama Inc. ~~and the wetland shall be constructed within 12 months of the consent commencing.~~ Any earth works associated with the wetland construction and the planting of the wetland embankments shall be*

¹ NIWA -Technical guidelines for constructed wetland treatment of pastoral farm run-off'

completed within 12 months of the consent commencing. All further works shall be completed within 24 months of the consent commencing.

61. Both Forest and Bird and TAMI have been approached for feed back on this change to condition. Forest and Bird has agreed to the change and stands by their withdrawal of their wish to be heard. Email confirmation of this is attached.
62. Stevie-Rae Blair on behalf of TAMI has been contacted (correspondence attached) although we note that Ms Blair is on sick leave due to her having Covid-19 and therefore we are unable to comment on whether TAMI is satisfied with the change to the consent condition. We will continue to work with TAMI on this matter once Ms Blair is back at work.

CONCLUSIONS

63. 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. A key objective of the pSWLP and higher planning instruments is to improve water quality in the receiving environments and a strong case has been made that this will be achieved by granting the applications.

MATILDA BALLINGER

PLANNER

24th March 2022

Appendix A – Proposed resource consent conditions (marked up S42A officer proposed)

Draft Consent Conditions

- 1. Discharge Permit**
- 2. Water Permit**
- 3. Land Use Consent (winter barn and feed pad)**
- 4. Land Use Consent (farming in the form of a dairy farm expansion)**
- 5. Land Use Consent (new effluent storage facility in the form of a herd home bunker)**

Discharge Permit

Under Section 104B of the Resource Management Act 1991, a resource consent is granted by the Southland Regional Council to **Titipua Limited Partnership** of **354 Hedgehope Block Road, Hedgehope 9872** from **Date Consent Granted 2022**.

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

Details of Permit

Purpose for which permit is granted:	To discharge agricultural effluent to land from up to 600 cows via low rate travelling irrigator, umbilical system and slurry tanker.
Location	<ul style="list-style-type: none"> - site locality Hedgehope Block Road, Hedgehope - map reference NZTM2000 1257620E 4869360N - physiographic zones Lignite Marine Terraces and Peat Wetlands - groundwater zone Makarewa - catchment Titipua Stream - FMU Oreti
Legal description of land at the site:	Lot 2 DP 420431 and Lot 3 DP 1494
Expiry date:	31 May 2032

Schedule of Conditions

General conditions

1. This resource consent shall not be exercised until Discharge Permit AUTH-301081-V1 is surrendered or has expired.
2. This consent shall be exercised in conjunction with Land Use Consent AUTH-20211092-04.

3. This consent authorises the discharge of dairy shed effluent and feed pad (“agricultural effluent”) onto land, via a land disposal system consisting of a sump, weeping wall, dual sludge beds, feed pad tank and a synthetically lined effluent storage pond to low rate travelling irrigator, umbilical system and slurry tanker, as described in the application (APP-20211092) for resource consent dated 11 May 2021¹, additional application dated 30 August 2021², additional application dated 6 December 2021³ and further information dated 30 August 2021². The activity shall be limited to:
 - (a) the discharge to land of agricultural effluent generated from milking of up to 600 cows up to twice per day;
 - (b) the discharge to land of agricultural effluent via a low rate travelling irrigator;
 - (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 93 hectares as per the plan attached as Appendix 1; and
 - (e) the discharge to land of feed pad effluent generated from the use of a feed pad by up to 120 cows between 1 August and 31 October (inclusive) and during adverse weather conditions.

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

4. Notwithstanding these conditions, this permit shall be exercised in accordance with the Collected Agricultural Effluent Management Plan. Where there is inconsistency between the Collected Agricultural Effluent Management Plan and the conditions of this consent, the conditions of this consent shall prevail.
5. The discharge shall not exceed:
 - (a) a depth of application of 10 millimetres for each individual application, and an instantaneous rate of 10 millimetres per hour via a low rate travelling irrigator;
 - (b) a depth of application of 5 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 discharge shall not occur when the moisture content of the soils is at or above field capacity as determined by soil moisture monitoring on Environment Southland’s website ‘Beacon’.
9. Nitrogen loading onto any land area as a result of the exercise of this consent shall not exceed 150 kilograms of nitrogen per hectare per year.

¹ Environment Southland Document ID: A654203

² Environment Southland Document ID: A697761

³ Environment Southland Document ID: A723636

Exclusions

10. This consent does not authorise the discharge of:
 - (a) dairy shed effluent collected during 1 June to 31 July; and
 - (b) effluent collected by a winter barn, silage pad or underpass.
11. No discharge shall occur within:
 - (a) 20 metres of any surface watercourse;
 - (b) 100 metres of any water abstraction point;
 - (c) 200 metres of any place of assembly or dwelling not on the subject property; and
 - (d) 20 metres from any property boundaries.

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

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 discharge shall occur via an agricultural effluent storage pond of between 2,279 cubic metres and 2,320 cubic metres capacity.
17. The Consent Holder must maintain at least 500 mm of freeboard in the agricultural effluent storage pond 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. Within three months of the first exercise of this consent, the Consent Holder shall prepare and submit to the Consent Authority a Collected Agricultural Effluent Management Plan. The Collected Agricultural Effluent Management Plan shall:
 - (a) provide concise and clear direction to the Person in Charge and other staff on the operation of the agricultural effluent system;
 - (b) identify environmental risks of agricultural effluent discharges specific to the farm including, but not limited to, locations of drains, surface waterways, sub-surface drainage and critical source areas in the agricultural effluent disposal area;
 - (c) identify how the above environmental risks are avoided;
 - (d) describe how each component of the agricultural effluent system is maintained and have regard to the information provided in the pond storage calculations provided in the application;
 - (e) describe how agricultural effluent in storage is managed;
 - (f) describe how agricultural effluent is managed when soils are at or above field capacity and/or during adverse weather conditions; and
 - (g) describe how the stormwater diversion on the system is set up and managed.
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 Operational Management Plan required by Land Use Consent AUTH-20211092-05 and/or the Farm Environmental Management Plan required by Rule 20, 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

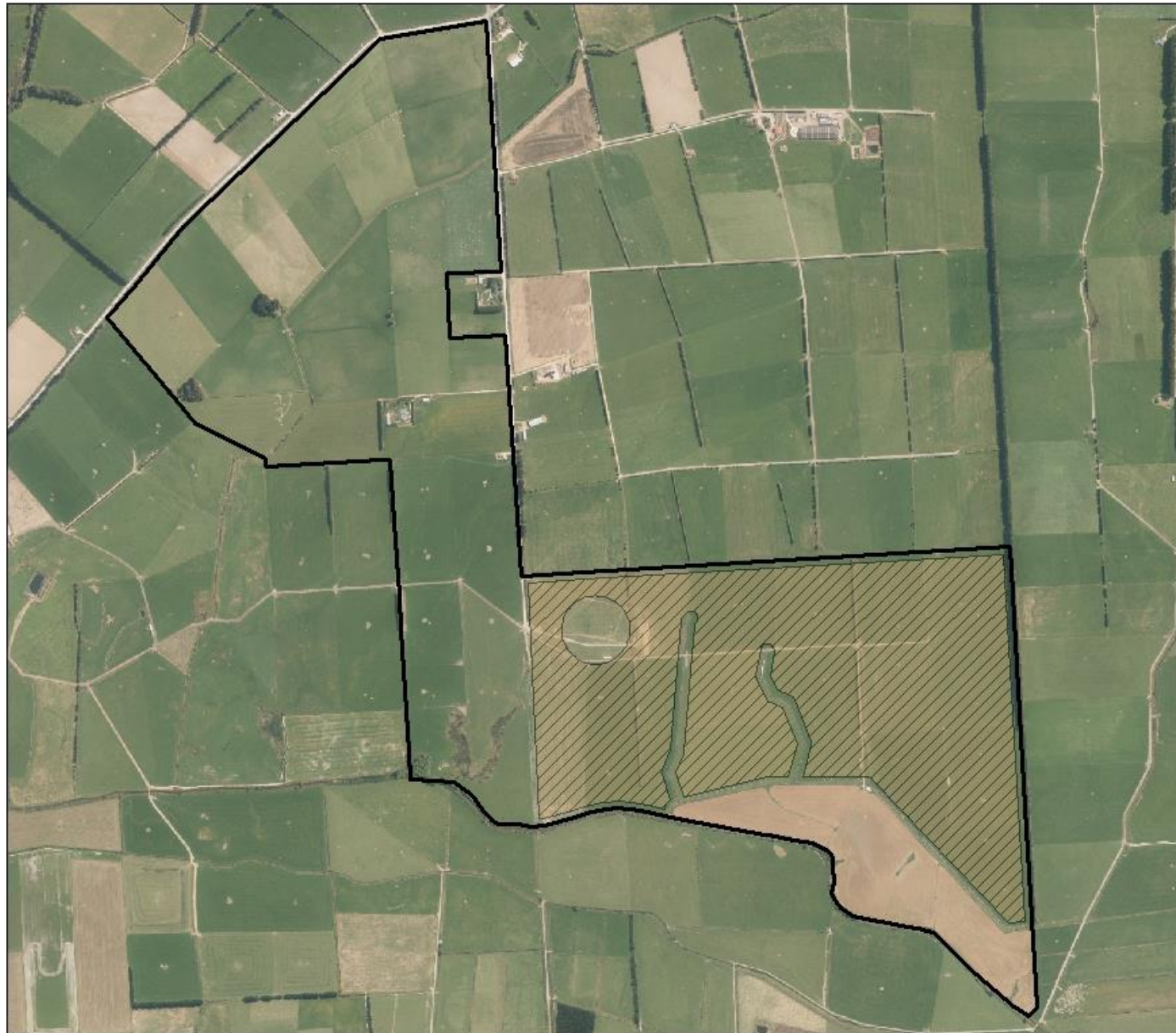
25. The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions of this consent during the period 1 February to 30 September each year, or within two months of any enforcement action 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 Oreti Freshwater Management Unit meets the freshwater objectives and freshwater quality limits set in an operative regional plan or National Policy Statement for Freshwater Management; and
 - (f) requiring the Consent Holder to adopt the best practicable option to remove or reduce any adverse effect on the environment arising as a result of the exercise of this permit.

for the **Southland Regional Council**

Allan 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://gis.es.govt.nz/> and following the "Soil Moisture Map" link.*
8. *Ponding is the accumulation of effluent on the soil surface resulting from the application of effluent to saturated soils, or the application of effluent inducing saturated soil conditions.*
9. *Extreme caution should be taken when applying nitrogen fertiliser to the effluent disposal area. It is recommended that a nutrient budget is used to check that nitrogen and potassium application rates to the effluent disposal area are not excessive.*
10. *The Consent Holder should display, in a prominent place in the dairy shed, a copy of the resource consent and relevant limits about the operation of the effluent disposal system that must be complied with.*
11. *Storage systems should be operated at low levels when conditions for effluent disposal are suitable in order to maintain storage for wet weather periods. In particular, storage systems should be emptied in late summer/early autumn to ensure sufficient storage capacity for the following late winter/early spring period.*



Appendix 1 Discharge Area

Discharge Area

-  Discharge Area
-  Farm Boundaries



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

DATA SOURCE: ES GIS 2022



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 **Titipua Limited Partnership** of **354 Hedgehope Block Road, Hedgehope 9872** from **Date Consent Granted 2022**.

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

Details of Permit

Purpose for which permit is granted:	To take and use groundwater for the purpose of stock drinking water and dairy shed wash down.
Location	Hedgehope Block Road, Hedgehope
- site locality	E46/1068
- well number	NZTM2000 1257616E 4869560N
- map reference	Makarewa
- groundwater zone	Titipua Stream
- catchment	Lignite Marine Terraces
- Physiographic zone	
Legal description of land at the site:	Lot 3 DP 1494
Expiry date:	31 May 2032

Schedule of Conditions

- This consent shall not be exercised until Water Permit AUTH-301082-V1 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 litres per second;
 - 72,000 litres per day; and
 - 26,280,000 litres per year.

Advice Note

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

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

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

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

for the **Southland Regional Council**

Allan 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.*

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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 **Titipua Limited Partnership** of **354 Hedgehope Block Road, Hedgehope 9872** from **Date Consent Granted 2022**.

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

Details of Consent

Purpose for which permit is granted: Use of land for a feed pad and herd home winter barn

Location - groundwater zone Makarewa
- FMU Oreti
- physiographic zone Lignite Marine Terraces
- catchment Titipua Stream

Expiry date: **31 May 2032**

Schedule of Conditions

1. This resource consent authorises the use of land for a feed pad as described in the application for resource consent dated 11 May 2021¹ and the use of land for a herd home winter barn described in the application for resource consent dated 6 December 2021². The activity shall be limited to:
 - (a) the use of land for a feed pad for up to 120 cows between 1 August and 31 October (inclusive);
 - (b) the use of land for a herd home winter barn for up to 490 cows all year round; and
 - (c) the use of the land for a feed pad and herd home winter barn during adverse weather conditions.

¹ Environment Southland Document ID: A654203

² Environment Southland Document ID: A723636

2. This consent shall be exercised in conjunction with Discharge Permit AUTH-20211092-01 (or any subsequent variation versions)

3. The feed pad shall be locate as described in the table below:

Legal description	Lot 3 DP 1494
Map Reference of Feed Pad (NZTM 2000)	1257741E 4869400N
Property address	354 Hedgehope Block Road

4. The feed pad shall not be located within:

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

5. The feed pad shall be:

- (a) no greater than 1,300 m² in area;
- (b) constructed with a concrete tank at the southern boundary to capture effluent generated on the feed pad; and
- (c) constructed with a minimum depth of 500mm of wood-based material across the base and nibbed edges to prevent overland flow beyond the perimeter of the feed pad.

6. Liquid effluent generated on the feed pad shall be captured in the concrete tank and pumped to the effluent system authorised by Discharge Permit AUTH-20211092-01.

7. The herd home winter barn shall be locate as described in the table below:

Legal description	Lot 3 DP 1494
Map Reference of Herd Home (NZTM 2000)	1257658E 4869494N
Property address	354 Hedgehope Block Road

8. The herd home winter barn shall not be located within:

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

9. The herd home winter barn shall be:

- (a) no greater than 720 m² in area;
- (b) constructed with containment bunkers beneath the herd home to capture effluent generated in the herd home; and
- (c) constructed with a concrete slatted floor and nibbed edges to prevent overland flow beyond the perimeter of the herd home.

10. Liquid and solid effluent generated in the herd home shall be captured in effluent storage bunker authorised by Land Use Consent AUTH-20211092-05.

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

Advice Note: *The Consent Holder shall discharge:*

- (a) *the feed pad and herd home sludge and associated vegetative matter in accordance with Rule 38 of the Proposed Southland Water and Land Plan (Decisions Version) or any subsequent versions; and*
 - (b) *the liquid effluent generated from the feed pad in accordance with the conditions of Discharge Permit AUTH-20211092-01 (or any subsequent variation versions).*
12. The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the consent holder of its intention to review the conditions of this consent during the period 1 February to 30 September each year, or within two months of any enforcement action being taken by the Consent Authority in relation to the exercise of this consent, or on receiving monitoring results, for the purposes of:
- (a) determining whether the conditions of this permit are adequate to deal with any adverse effect on the environment, including cumulative effects, which may arise from the exercise of the permit, and which it is appropriate to deal with at a later stage, or which become evident after the date of commencement of the permit;
 - (b) ensuring the conditions of this consent are consistent with any National Environmental Standards Regulations, relevant plans and/or the Environment Southland Regional Policy Statement; or
 - (c) ensuring the Oreti Freshwater Management Unit meets the freshwater objectives and freshwater quality limits set in an operative regional plan pursuant to Policy A1 of the National Policy Statement for Freshwater Management.

for the **Southland Regional Council**

Allan 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. *The consent holder shall pay an annual administration and monitoring charge to the Consent Authority, collected in accordance with Section 36 of the Resource Management Act, 1991. This charge may include the costs of inspecting the site up to one time each year (or otherwise as set by the Consent Authority's Annual Plan).*

Land Use Consent

Under Section 104B of the Resource Management Act 1991, a resource consent is granted by the Southland Regional Council to **Titipua Limited Partnership** of **354 Hedgehope Block Road, Hedgehope 9872** from **Date Consent Granted 2022**.

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

Details of Consent

Purpose for which permit is granted:	Use of land for farming
Location	- groundwater zone - FMU - physiographic zones - catchment
	Makarewa Oreti Lignite Marine Terraces, Peat Wetlands and Gleyed Titipua Stream
Expiry date:	31 May 2032

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-20211092)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.
3. The use of land for farming shall occur on the landholding at 354 Hedgehope Block Road, as shown on the plan attached as Appendix 1, and consisting of a block of land forming the dairy platform, at or about map reference (NZTM 2000) 1257613E 4869560N and comprising Lot 2

¹ Environment Southland Document ID: A654203

DP 420431, Lot 3 DP 1494, Lot 1 DP 470872, Lot 1 DP 386399, Lot 2 DP 386399, Lot 2 DP 558643 and Lot 2 DP 4406.

4. The farming activities shall be limited as follows:
- (a) a maximum milking herd of no more than 600 cows; and
 - (b) intensive winter grazing of a maximum of 400 mature age cows on a maximum of 10 ha of crop.

Advice note:

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

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

Advice Note

Routine monitoring inspections of this property may occur up to one time each year. This number does not include any other inspections required by other Resource Consents.

Exclusions

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

Nutrient Management

8. From the first exercise of this Consent, the Consent Holder shall implement a soil testing regime to determine the soil fertility status over the landholding and to develop fertiliser recommendations based on the soil testing results.
9. The Consent Holder shall maintain a record of their soil testing regime, soil testing results and fertiliser recommendations required by condition 9 and provide this record to the Consent Authority (EScompliance@es.govt.nz) by 30 September each year.

10. 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 175 kg/ha/yr over a four-year rolling average, and no more than 190 kg/ha in any single year./year.

11. The Consent Holder shall:

- (a) take representative soil samples at least once every two years and have those samples analysed for Olsen P by a laboratory with IANZ accreditation;
- (b) by 30 September each year in 2024, 2026, 2028 and 2030 provide the results to the Consent Authority (EScompliance@es.govt.nz); and
- (c) if Olsen P levels exceed a range of 29 - 31 the Consent Holder must reduce the amount of P fertiliser being applied to the landholding to ensure the risk of P loss is reduced. This reduction in P fertiliser shall be noted in the records required by condition 26(a).

Nutrient Modelling

12. 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) 40 kilograms per hectare per year nitrogen;
 - (i) as estimated by the four-year rolling average loss rates using OVERSEER FM® version 6.4.2, undertaken in accordance with the generally accepted best practice modelling including the applicable Best Practice Data Input Standards/Overseer FM User Guide.
- (b) 2.3 kilogram per hectare per year phosphorus;
 - (i) as estimated by the four-year rolling average loss rates using OVERSEERFM® version 6.4.02, undertaken in accordance with the generally accepted best practice modelling including the applicable Best Practice Data Input Standards/Overseer FM User Guide; and
 - (ii) information from published New Zealand and Overseas research to estimate the additional phosphorus loss mitigation, beyond that modelled in Overseer, that is likely to occur as a result of the mitigation being implemented in accordance with the FEMP required under this resource consent.

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

13. 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 12 in the current version of Overseer.
14. The re-modelled baseline contaminant loss rates, modelled in accordance with Condition 13(c) shall supersede and replace the baseline contaminant loss rates specified in condition 12.
15. 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 13. 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~~three-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.
16. 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).
17. The Consent Holder may use an alternative model that has been demonstrated to be equivalent to Overseer provided:
 - (a) the evidence to demonstrate equivalence is provided to the Consent Authority at least six months prior to submitting the relevant annual report as required by condition 16; and
 - (b) the use of the alternative model is approved by the Chief Executive of the Consent Authority.

Mitigation Measures

18. 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.
19. 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.
20. Except for crossings of surface waterways, the Consent Holder shall not construct any new dairy lanes within 20 metres of a surface waterbody.

21. The Consent Holder shall:

- (a) construct a new herd home winter barn, as detailed in the application, at or about NZTM 1257658E 4869494N;
- (b) provide written confirmation, along with date stamped photos, of the fully operational herd home winter barn to the Consent Authority (EScompliance@es.govt.nz) by 1 May 2023.

22. 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 12 months of the consent being granted and be incorporated into the consent holder's Farm Environmental management plan required by Condition 29; planting works shall be implemented over the duration of the consent and completed at least 6 months prior to the expiry of the consent. The plan required by this condition shall be provided to Te Ao Marama Inc.

22-23. The Consent Holder shall:

- (a) Prior to the exercise of this consent, a suitably qualified and/or experienced person, shall prepare a wetland design plan that includes the use of native plants. The plan must demonstrate that the wetland will be constructed in accordance with the guidelines described in 'NIWA – Technical guidelines for constructed wetland treatment of pastoral farm run-off' and be submitted to Council. The plan required by this condition shall be provided to Te Ao Marama Inc.
- (b) reconstruct the existing duck pond into a wetland, in accordance with NIWA's Technical guidelines for constructed wetland treatment of pastoral farm run-off, as detailed in the application, at or about NZTM2000 1257230E 4869143N by 1 May 2023; and. Any earthworks associated with the wetland reconstruction shall be completed within 12 months of the consent commencing. All further works shall be completed within 24 months of the consent commencing.
- (c) A suitably qualified and/or experience person shall provide written confirmation, along with date stamped photos, of the completed wetland construction to the Consent Authority (EScompliance@es.govt.nz) by 1 June 2023.

23-24. The Consent Holder shall utilise plantain in their re-grassing program. The plantain content shall be recommended by a suitably qualified seed representative and shall be detailed in the FEMP required by condition 28.

24-25. 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.

25-26. The Consent Holder shall cultivate:

- (a) with the contour of the land being used for cultivation and shall not cultivate up and down the slope; and
- (b) no less than 5 metres from the outer edge of any surface water body or natural wetland unless for the purpose of renewing or establishing pasture in accordance with Rule 25(b) of the Proposed Southland Water and Land Plan (Decisions Version), or any subsequent replacement versions.

Records and Reporting

26-27. The Consent Holder must have and maintain a record of the following practices undertaken on-farm for each year between 1 July and 30 June:

- (a) fertiliser application, including rates and dates of application;
- (b) types of crops and total area of cropping, including winter feed/forage crops;
- (c) cultivation methods;
- (d) stock units with references to type, age and breed;
- (e) effluent application areas; and
- (f) all other inputs to the OVERSEER® nutrient budgeting model.

27-28. These records required by Condition 26 shall be provided to the Consent Authority (EScompliance@es.govt.nz) by 30 September each year.

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Farm Environmental Management Plan

28-29. The Consent Holder shall have and maintain a Farm Environmental Management Plan (FEMP). The FEMP shall, in accordance with Appendix N of (Decisions Version) the Southland Water and Land Plan (or any replacement Appendix in an updated version of the plan), demonstrate how the following outcomes are to be achieved:

- (a) nutrients are used efficiently and nutrient loss to water is minimised;
- (b) contaminant losses from critical source areas are reduced;
- (c) cultivation is undertaken in a manner that minimises the movement of sediment and phosphorus to waterways;
- (d) intensive winter grazing occurs in a way that minimises the loss of sediment, phosphorus and microbiological contaminants to waterways;
- (e) agricultural effluent and other discharges are managed in a way that avoids or minimises the loss of contaminants to water. Irrigation water is applied to meet plant demands and minimises the risk of leaching and run-off;

29-30. The FEMP required by Condition 28 shall also include, but not be limited to:

- (a) a site map showing the location of critical source areas; physiographic zones; permanent or intermittent rivers, streams, lake, drains, ponds or wetlands; where known the location and depth of any subsurface drainage systems including outlets, riparian vegetation and fences adjacent to waterways and stock access points across waterways;
- (b) details of the implementation and maintenance of mitigation measures required by the conditions of this consent and any mitigations voluntarily implemented including new riparian planting;
- (c) details of the implementation and maintenance of Good Management Practices, including adoption of changing industry good management practices. This includes where the implementation of these is to avoid, remedy or mitigate any farm specific environmental risks to water quality shown through any monitoring undertaken on the property voluntarily or as required by the conditions of this consent;
- (d) a review of the data obtained from the monitoring undertaken in accordance with the Farm Environmental Management Plan and any changes made, or to be made, as a consequence of that monitoring.
- ~~(d)~~(e) From May 2023, a section detailing the impact of the operation on climate change, including estimates of Green House Gas emissions and any actions implemented to mitigate or offset those impacts.

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.

30-31. The FEMP shall be reviewed at least once a year and can be modified at any time by the Consent Holder; and either

- (a) an updated version shall be provided to the Consent Authority by 30 September each year; **or**
- (b) the Consent Holder must notify the Consent Authority in writing that no changes have been made by 30 September each year.

Advice Note

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

31-32. 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

33. The Consent Authority may require the Consent Holder to have the farming activity as authorised by this consent independently audited by a person who is a Certified Nutrient Management Advisor or Farm Environmental Plan Auditor or a Suitably Qualified Person who has demonstrated an equivalent level of expertise.
34. 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 conditions 12 and 14.
35. 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.
36. The audit shall record the justification for each level of confidence assessment, including noting the evidence, or lack of, used to make the determination.
37. 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.
38. 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.
39. 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.
40. 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.
41. 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.

- 42. 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.
- 43. Upon completion of all the changes made and/or mitigations implemented as identified in the audit, the Consent Holder must ensure the measures are properly maintained, continue to function and are not removed or altered for the duration of this consent (and any subsequent variation versions).

Lapse and Review

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

for the **Southland Regional Council**

Allan Cubitt
Independent Hearing Commissioner

Notes:

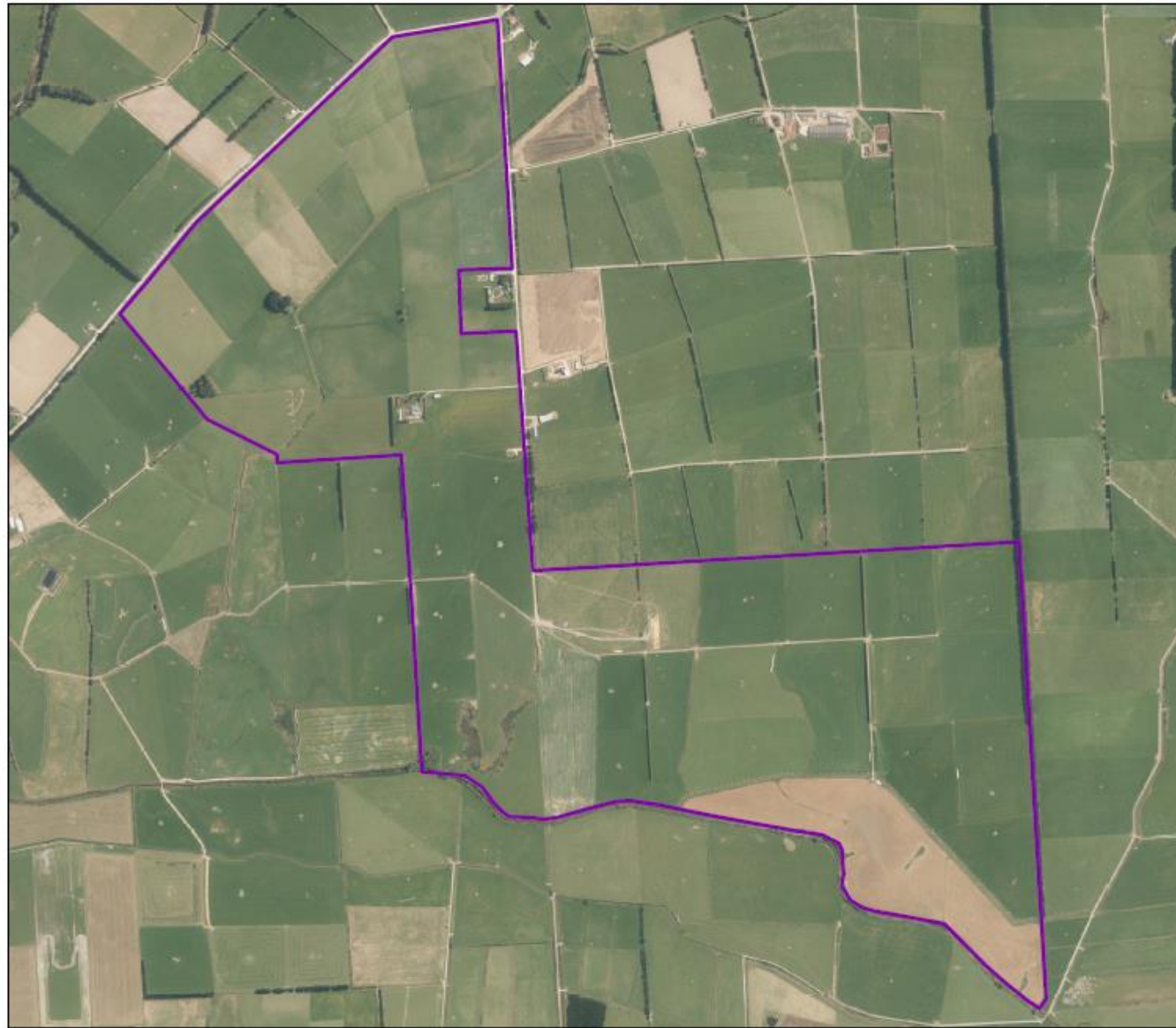
- 1. *Reporting to Council is required by conditions of your consent. The key dates for you to meet are listed below in Table 1:*

Table 1: List of Key Dates


Due date	Condition number	Requirement
30 Sept each year	9	Provide record of soil testing regime, soil testing results and fertiliser recommendations

Due date	Condition number	Requirement
30 Sept 2024, 2026, 2028 & 2030	11	Provide Olsen P results
30 Sept each year	15	Report summarising results of Overseer modelling
1 May 2023	22	Confirmation of herd home winter barn construction
1 June 2023	23	Confirmation of wetland construction
30 Sept each year	27	Provide record of farming practices
30 Sept each year	30	Provide updated version of FEMP if changes were made due to review or confirm no changes were made due to review

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



Appendix 1 Landholding

 Landholding Boundary



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

DATA SOURCE: ES GIS 2022



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

Land Use Consent

Under Section 104B of the Resource Management Act 1991, a resource consent is granted by the Southland Regional Council to **Titipua Limited Partnership** of **354 Hedgehope Block Road, Hedgehope 9872** from **Date Consent Granted 2022**.

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

Details of Permit

Purpose for which permit is granted:	To construct, maintain, and use a herd home bunker for the storage of agricultural effluent
Location	- site locality Hedgehope Block Road - map reference NZTM2000 1257658E 4869494N - groundwater zone Makarewa - physiographic zone Lignite Marine Terraces - catchment Titipua Stream
Legal description of land at the site:	Lot 3 DP 1494
Expiry date:	31 May 2032

Schedule of Conditions

General Conditions

1. This consent authorises the construction, maintenance, and use, in accordance with the application for resource consent dated 6 December 2021¹, of an effluent storage herd home bunker with capacity to store no more than 834 cubic metres of effluent.

Operational Requirements and Limitations

2. This Resource Consent shall be exercised in conjunction with Land Use Consent AUTH-20211092-03.

¹ Environment Southland Document ID: A723636

3. There must be no overland or lateral flow, or overtopping or overflowing of agricultural effluent from or outside of, or visible or noticeable leakage from, the structures authorised by this consent, during the use and maintenance of the structures.

Construction

4.
 - (a) The effluent storage bunker must be designed, and the construction supervised, by a suitably qualified person. The bunker shall be constructed of suitable materials, and shall be designed and constructed in such a manner that it is structurally sound and will not leak.
 - (b) The supervising suitably qualified person shall, upon completion of the construction, provide to the Consent Authority (escompliance@es.govt.nz):
 - (i) confirmation in writing that the bunker has been designed and constructed in accordance with the conditions of this consent and the "IPENZ Practice Note 21 "Farm Dairy Effluent Ponds" 2017;
 - (ii) the Producer Statement;
 - (iii) results from compaction testing undertaken following completion of the earthworks; and
 - (iv) reports and photographs from each installation progress inspection undertaken by the suitably qualified person, or by any other supervising person acting on their behalf.
 - (c) No effluent may be stored/treated in the bunker until the confirmation required by condition 4(b) is received by the Consent Authority.
 - (d) The confirmation required by condition 4(b) shall be provided to the Consent Authority no later than 1 May 2023.
5. The effluent bunker shall not be constructed within:
 - (a) 50 metres of any surface watercourse;
 - (b) 100 metres of any water abstraction point;
 - (c) 50 metres of any other property boundary;
 - (d) 200 metres of any residential dwelling, other than residential dwellings on the property.

Inspections and monitoring

6.
 - (a) At least once each milking season, the consent holder shall:
 - (i) inspect the bunker while it is empty to check for cracks, holes, or defects; and
 - (ii) take photographs of the empty bunker which show all aspects of the structure.
 - (b) The consent holder shall maintain a record of the inspections and photographs taken under condition 6(a) and shall provide the record to the Consent Authority upon request.
7.
 - (a) By 30 June 2031 the consent holder shall obtain written confirmation from a Suitably Qualified person that the bunker has no visible cracks, holes or defects that would allow effluent to leak from the structure.

- (b) The certification required by condition 7(a) shall be accompanied by photographs of the structures (date stamped) and be supplied to the Consent Authority within one month of receiving the certification.
8. The Consent Holder shall notify the Consent Authority within 48 hours if the inspections required by condition 6, the certification required by condition 7, or any other inspection or testing identifies that:
- (a) the bunker is not structurally sound (which may be identified through the presence of slumping, hollows, bulges, or defects on either the inside or outside walls of the structure); or
 - (b) the structure has visible cracks, holes or defects that would allow effluent to leak from the structure.
9. Within one week of notifying the Consent Authority under condition 8, the Consent Holder shall advise the Consent Authority in writing of the steps that will be taken to ensure that the structure is made suitable for ongoing use, including:
- (a) any additional testing to be undertaken;
 - (b) an outline of the proposed works to be undertaken to remediate the structure;
 - (c) the timeframe for completion, which shall be no longer than three months;
 - (d) identification of whether the works will require consent for reconstruction of the bunker (rather than the maintenance authorised by this consent);
 - (e) the additional mitigation measures that will be employed to minimise the adverse effects of the leaking structure prior to remediation being undertaken; and
 - (f) testing, certification, or inspections to be completed following the works to demonstrate that the structure is able to comply with the conditions of this consent.

Operational Management Plan

10. Within six months of the exercise of this consent, the consent holder shall prepare and submit to the Consent Authority an Operational Management Plan for the herd home bunker authorised by this consent. The Operational Management Plan may be combined with the Collected Agricultural Effluent Management Plan required by AUTH-20211092-01 (the relevant discharge permit) or any subsequent replacement, and shall include:
- (a) operational procedures relating to the bunker;
 - (b) emergency responses;
 - (c) monitoring and reporting requirements;
 - (d) the undertaking of visual inspections;
 - (e) a record of any maintenance work undertaken; and
 - (f) the installation of monitoring devices.
11. The Operational Management Plan required by condition 10 shall be reviewed at least once each milking season, with the outcome of the review provided to the Consent Authority within one month.

12. If an event (such as effluent overflow to water or collapse of the structure) occurs that may have significant adverse effect on water quality, particularly at 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);
 - (b) Southland District Council (ph 0800 732 732).

Accidental Discovery

13. In the event of a discovery, or suspected discovery, of a site of cultural importance (Waahi Taonga/Tapu) during the effluent bunker construction, the consent holder shall immediately cease operations in that location and inform the local iwi authority (Te Ao Marama Inc, phone 03 931 1242). Operations may recommence at a time as agreed upon in writing with the Consent Authority. The discovery of Koiwi (human skeletal remains) or Taonga or artefact material (e.g. pounamu/greenstone) would indicate a site of cultural importance. Appendix A to this consent outlines the process that is to be followed in the event of such a discovery.

for the **Southland Regional Council**

Allan Cubitt
Independent Hearing Commissioner

Note:

1. *The consent holder shall pay an annual administration and monitoring charge to the Consent Authority, payable on invoice. This charge may include the costs of inspecting the operation of this resource consent.*

Appendix A: Protocol in the event of a discovery, or suspected discovery, of a site of cultural importance (Waahi Taonga/Tapu)

1. Kōiwi tangata accidental discovery

If Kōiwi tangata (human skeletal remains) are discovered, then work shall stop immediately and the New Zealand Police, Heritage New Zealand (details below) and Te Ao Marama Inc. (Ngāi Tahu (Murihiku) Resource Management Consultants) shall be advised. Contact details for Te Ao Marama Inc are as follows:

Te Ao Marama Inc
Murihiku Marae, 408 Tramway Road, Invercargill
PO Box 7078, South Invercargill 9844
Phone: (03) 931 1242

Te Ao Marama Inc. will arrange a site inspection by the appropriate Tangata Whenua and their advisers, including statutory agencies, who will determine how the situation will need to be managed in accordance with tikanga māori.

2. Archaeological Sites

Archaeological sites are protected under the Heritage New Zealand Pouhere Taonga Act (2014), and approval is required from Heritage New Zealand before archaeological sites can be modified, damaged or destroyed.

Not all archaeological sites are known or recorded precisely. Where an archaeological site is inadvertently disturbed or discovered, further disturbance must cease until approval to continue is obtained from Heritage New Zealand. As stated above, the New Zealand Police and Te Ao Marama Inc. also need to be advised if the discovery includes kōiwi tangata /human remains.

Heritage New Zealand c/o Regional Archaeologist Otago/Southland
PO Box 5467, Dunedin
Phone: (03) 477 9871 Mobile 027 240 8715 infodeepsouth@heritage.org.nz

3. Taonga or artefact accidental discovery

If taonga or artefact material (e.g. pounamu/greenstone artefacts) other than kōiwi tangata is discovered, disturbance of the site shall cease immediately and Southland Museum and Te Ao Marama Inc. shall be notified of the discovery by the finder or site archaeologist in accordance with the Protected Objects Act 1975. All taonga tuturu are important for their cultural, historical and technical value and are the property of the Crown until ownership is resolved.

4. In-situ (natural state) pounamu/greenstone accidental discovery

Pursuant to the Ngāi Tahu (Pounamu Vesting) Act 1997, all natural state pounamu/greenstone in the Ngāi Tahu tribal area is owned by Te Runanga o Ngāi Tahu. Ngāi Tahu Pounamu Management Plans provide for the following measures:

- any *in-situ* (natural state) pounamu/greenstone accidentally discovered should be reported to Te Runanga o Ngāi Tahu staff as soon as is reasonably practicable. Te Runanga o Ngāi Tahu staff will in turn contact the appropriate Kaitiaki Papatipu Runanga;
- in the event that the finder considers the pounamu is at immediate risk of loss such as erosion, animal damage to the site or theft, the pounamu/greenstone should be carefully covered over and/or relocated to the nearest safe ground.

The find should then be notified immediately to the Programme Leader – Ohanga, at Te Rūnanga o Ngāi Tahu. Their details are as follows:

Te Rūnanga o Ngāi Tahu
C/- Programme Leader - Ohanga
Te Whare o Te Wai Pounamu
15 Show Place, PO Box 13-046, Otautahi/Christchurch 8021
Phone: (03) 366 4344 Web: www.ngaitahu.iwi.nz

DRAFT

Appendix B – Correspondence with Forest and Bird

Matilda Ballinger

From: Matilda Ballinger
Sent: Thursday, 24 March 2022 11:57 am
To: Matilda Ballinger
Subject: FW: Amendment to consent conditions

From: Tom Kay <T.Kay@forestandbird.org.nz>
Sent: Thursday, 24 March 2022 10:48 am
To: Matilda Ballinger <matilda@landpro.co.nz>
Subject: RE: Amendment to consent conditions

Kia ora Matilda

Thanks for that explanation. In light of the fact that initial work will be under taken and the herd home is being constructed, and the conditions of the consent tie the applicant to completion of both projects, I can live with the alteration to that condition. Presumably, construction of the wetland and the earthworks associated with it will be managed to ensure that it doesn't in fact create a greater sediment problem over the coming winter than that it is meant to mitigate.

Please let me know if you need an amended letter from Forest & Bird, or if this email will suffice.

Ngā mihi,

Tom Kay ([he/him](#))

Conservation Advocate - Freshwater
Royal Forest and Bird Protection Society of New Zealand Inc.
M 022 183 2729
Note I work Monday - Friday

From: Matilda Ballinger <matilda@landpro.co.nz>
Sent: Thursday, 24 March 2022 10:31 am
To: Tom Kay <T.Kay@forestandbird.org.nz>
Subject: RE: Amendment to consent conditions

Hi Tom

I very much understand this concern and apologies that we did not pick up on this earlier.

Whilst the wetland will not be completed within the 1st year of the consent commencing, the work that will have been done will still significantly contribute to the management of the proposal.

The planting of the dry areas/embankments of the wetland will help mitigate overland flow and contaminants from entering the wetland. Similarly the earth works associated with the wetland will construct a number of pools of different depths. These pools will allow longer residence times for water in the wetland, settling out sediment (and associated phosphorus).

The way we have worded the consent condition binds the applicant to do this work within the first year. If we kept the condition as it originally was, the applicant would be forced to plant the wet areas when it was not suitable, likely resulting in these plants not reaching maturity. This would result in an even longer time for the wetland to reach it's full potential. We are confident however that the first stage of the wetland reconstruction i.e. planting and earth works will still successfully mitigate a large proportion of the contaminants.

The herd home is currently under construction and is due to be completed prior to the upcoming winter, i.e. will be used immediately.

Unfortunately Stevie-Rae, the representative from TAMI is off on sick leave as she has Covid. I am not expecting to hear anything from her until next week at the earliest. I have noted this in my draft evidence.

Please let me know your thoughts on the above. I do hope that you will see the stage 1 of the wetland reconstruction, and the completion of the herd home prior to this winter as enough of a mitigation in the interim.

Thanks
Matilda

From: Tom Kay <T.Kay@forestandbird.org.nz>
Sent: Thursday, 24 March 2022 10:08 am
To: Matilda Ballinger <matilda@landpro.co.nz>
Subject: RE: Amendment to consent conditions

Kia ora Matilda

I'm concerned that the wetland is a key part of the mitigation package, and to not have it operating prior to the exercise of the consent would mean that effects are not being appropriately managed. Likewise there is already going to be a delay with the barn, climate change incorporation into the FEMP, planting plan implementation, etc.

I would consider it more appropriate for the activity to be limited under the first few years of the consent (e.g. herd size not to be increased to 600 cows, etc.) until the appropriate mitigation measures are in place.

I would be interested to know what TAMI's response is.

Ngā mihi,

Tom Kay ([he/him](#))

Conservation Advocate - Freshwater
Royal Forest and Bird Protection Society of New Zealand Inc.
M 022 183 2729
Note I work Monday - Friday

From: Matilda Ballinger <matilda@landpro.co.nz>
Sent: Wednesday, 23 March 2022 12:57 pm

To: Tom Kay <T.Kay@forestandbird.org.nz>

Subject: RE: Amendment to consent conditions

Hi Tom

Thanks so much for that letter. Really appreciate it.

One thing has just popped up, Mo Topham (nutrient modeller) was having discussions with Chris Tanner this morning (author of the NIWA guidelines) and he has noted that when planting the wetland, the general plan is that you undertake any construction of the wetland in summer/autumn. You then plant the embankments/dry areas of the wetland in autumn/winter/spring and the wet areas the following spring/summer. (See diagram below from the NIWA guidelines). Planting outside of these guidelines may result in the plants not surviving and having to be re-planted.

Appendix C Construction timeline

Task	Planning period	Winter	Spring	Summer	Autumn	Winter	Spring	Summer	Autumn	Winter	Spring
Plan wetland - identify appropriate site, delineate catchment, determine appropriate wetland size and associated contaminant reductions, determine appropriate design configuration, get quotes for construction and planting.											
Check regulations with local Council. Discuss proposed design, supply required information and apply for consent if required.											
Determine construction requirements and book contractor/ machinery hire and any engineering oversight required											
Plant supply - Pre-order plants											
Construct wetland											
Plant embankments											
Plant wetland											
Control weeds pre- and post-planting and manage pests. Irrigate plants if required											
Check and maintain wetland inlets and outlets (water levels), embankments, sedimentation pond											

The consent condition agreed upon with TAMI is that the wetland will be constructed within 12 months of the consent commencing.

In order to be in line with the guidelines above (and apologies for not noticing this half an hour ago before you have given approval!) we proffer the following amendments to the condition

Condition Y: Prior to the exercise of this consent the consent holder shall prepare a wetland design plan than includes the use of native plants. The plan must demonstrate that the wetland will be constructed in accordance with the guidelines described in 'NIWA -Technical guidelines for constructed wetland treatment of pastoral farm run-off' and be submitted to the Council. The plan required by this condition shall be provided to Te Ao Marama Inc. ~~and the wetland shall be constructed within 12 months of the consent commencing.~~ Any earth works associated with the wetland construction and the planting of the wetland embankments shall be completed within 12 months of the consent commencing. All further works shall be completed within 24 months of the consent commencing.

Is this something that you would be ok with? I am going back to TAMI as well and asking them. Just conscious that it is already Autumn, and whilst conditions may be suitable now, they may not be by the time the consent has finally been approved.

Thanks
Matilda

Matilda Ballinger

Planner



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Cromwell 9342 New Zealand

New Plymouth | Cromwell | Gore



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Appendix C – Correspondence with Stevie-Rae Blair re amendment to agreed consent condition

Matilda Ballinger

From: Matilda Ballinger
Sent: Thursday, 24 March 2022 11:29 am
To: <mailto:stevie@tami.maori.nz>
Subject: RE: Amendment to agreed upon consent conditions

Hi Stevie-Rae

I also thought it might be useful to note, as Forest and Bird found that it was helpful. The herd home is currently being constructed and the aim is to have it completed prior to this coming winter, i.e., it should be ready to use immediately.

Hope you are feeling ok

Thanks
Matilda

From: Matilda Ballinger
Sent: Wednesday, 23 March 2022 2:10 pm
To: <mailto:stevie@tami.maori.nz> <stevie@tami.maori.nz>
Subject: Amendment to agreed upon consent conditions

Hi Stevie-Rae

Christina has told me that you are off sick with Covid, I hope you are feeling ok and are resting up!

One thing has just popped up, Mo Topham (nutrient modeller) was having discussions with Chris Tanner this morning (author of the NIWA guidelines) and he has noted that when planting the wetland, the general plan is that you undertake any construction of the wetland in summer/autumn. You then plant the embankments/dry areas of the wetland in autumn/winter/spring and the wet areas the following spring/summer. (See diagram below from the NIWA guidelines). Planting outside of these guidelines may result in the plants not surviving and having to be re-planted.

Appendix C Construction timeline

Task	Planning period	Winter	Spring	Summer	Autumn	Winter	Spring	Summer	Autumn	Winter	Spring
Plan wetland - identify appropriate site, delineate catchment, determine appropriate wetland size and associated contaminant reductions, determine appropriate design configuration, get quotes for construction and planting.											
Check regulations with local Council. Discuss proposed design, supply required information and apply for consent if required.											
Determine construction requirements and book contractor/ machinery hire and any engineering oversight required											
Plant supply - Pre-order plants											
Construct wetland											
Plant embankments											
Plant wetland											
Control weeds pre- and post-planting and manage pests. Irrigate plants if required											
Check and maintain wetland inlets and outlets (water levels), embankments, sedimentation pond											

The consent condition we agreed upon is that the wetland will be constructed within 12 months of the consent commencing.

In order to be in line with the guidelines above (and apologies for not noticing this earlier) we proffer the following amendments to the condition

Condition Y: Prior to the exercise of this consent the consent holder shall prepare a wetland design plan than includes the use of native plants. The plan must demonstrate that the wetland will be constructed in accordance with the guidelines described in 'NIWA -Technical guidelines for constructed wetland treatment of pastoral farm run-off' and be submitted to the Council. The plan required by this condition shall be provided to Te Ao Marama Inc. and the wetland shall be constructed within 12 months of the consent commencing. Any earth works associated with the wetland construction and the planting of the wetland embankments shall be completed within 12 months of the consent commencing. All further works shall be completed within 24 months of the consent commencing.

Is this something that you would be ok with? Just conscious that it is already Autumn, and whilst conditions may be suitable now, they may not be by the time the consent has finally been approved.

Thanks and I hope you are feeling ok.

Matilda

Matilda Ballinger

Planner



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