BEFORE THE INDEPENDENT HEARING PANEL

APPOINTED BY ENVIRONMENT SOUTHLAND

APPLICATION	APP-20242456 Periodic opening of the Waituna Lagoon to maintain and restore ecological health and cultural values of the lagoon ecosystem
UNDER THE	Resource Management Act 1991
IN THE MATTER OF	Applications for resource consent by **ENVIRONMENT SOUTHLAND, DEPARTMENT OF CONSERVATION** and **TE RŪNANGA O AWARUA**

PLANNING EVIDENCE OF KATE SANNAZZARO ON BEHALF OF SOUTHLAND FEDERATED FARMERS OF NEW ZEALAND (INCORPORATED)

22 JULY 2025

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INTRODUCTION

1. My name is Karen (Kate) Lisa Sannazzaro. I am employed by Federated Farmers of New Zealand (Incorporated) as a Senior Policy Advisor and I am based in Dunedin. I am authorised to provide expert planning evidence on behalf of Federated Farmers, including Southland Federated Farmers of New Zealand (Incorporated) (**Southland Federated Farmers**).

Qualifications and experience

2. I hold a Bachelor of Science (Honours) with First Class Honours, majoring in Geology from the University of Auckland.

3. I have over twenty years' experience in the field of environmental policy and planning. This has included:

   (a) Four years as a consultant environmental scientist at URS (NZ) Ltd and Sinclair Knight Merz Ltd in Auckland, undertaking fieldwork and evaluations for clients to support assessments of environmental effects.

   (b) Three years as Consent Planner / Senior Consent Planner at Otago Regional Council.

   (c) Six years as Senior Policy Analyst at Otago Regional Council, including involvement in a series of amendments to the regional water plan.

   (d) Nine years as Three Waters Regulation and Policy Team Leader at Dunedin City Council, including advising on drainage and stormwater infrastructure management issues, and the consenting and compliance of city discharges.

   (e) Three years as Senior Policy Analyst at the Ministry for the Environment, working on water quality, three waters infrastructure, and RMA national direction instruments.

   (f) One year as Lead Policy Advisor Wastewater and Stormwater at the Water Services Authority - Taumata Arowai, working on implementation of the new regulatory system for public wastewater and stormwater networks.

4. I am an Associate Member of the New Zealand Planning Institute.

Code of conduct

5. Although this is a Council hearing, I have read the code of conduct for expert witnesses as set out in section 9 of the Environment Court's Practice Note 2023. I have complied with the Code when preparing my written statement of evidence.

6. The information, facts and assumptions I have considered in forming my opinions are set out in my evidence below. The reasons for the opinions expressed are also set out in the evidence below.

7. Unless I state otherwise, this evidence is within my sphere of expertise, and I have not omitted to consider material facts known to me that might alter or detract from the opinions that I express.

Scope of evidence

8. My evidence has been prepared to respond to the planning framework that applies to the consent application by Te Rūnanga o Awarua, Department of Conservation Te Papa Atawhai and Environment Southland, for the periodic opening of the Waituna Lagoon to maintain and restore ecological health and cultural values of the lagoon ecosystem (APP-20242456) (**the application**).

9. My evidence details my concerns with the planning approach and assessment by the applicant and in the s42A report. My evidence considers:

   (a) How Ki Uta Ki Tai – a whole of catchment integrated management approach – has been applied.

   (b) The functions of Environment Southland, including as a regulator developing its framework to manage the Waituna Freshwater Management Unit (**FMU**), and as the operator of Flood Control Works that outfall into the Waituna Lagoon.

   (c) How a failure to identify and assess the Flood Control Works that outfall into the Waituna Lagoon may impact this application and its assessment of environmental effects, including the potential

effect of a failure of Environment Southland to carry out a statutory duty.

(d) How the 'existing environment' has been determined and applied, and whether this serves natural justice given the uniqueness of the catchment, the history of the area, the influence of historic and regular opening on the current form and function of the lagoon.

(e) Whether an assessment of effects should evaluate the proposed water level triggers for opening the lagoon.

(f) How national direction on freshwater management has been applied, including the determination of whether the lagoon is a 'natural inland wetland'.

10. At the time of writing this evidence, expert conferencing between planners has not occurred. We anticipate completing this prior to commencement of the hearing.

Material considered

11. In preparing this evidence I have reviewed the following documents:

The application

(a) The resource consent application and assessment of environmental effects, prepared by Taylor Planning Limited and dated July 2024, and further information.

Submissions

(b) The submissions on the application.

Expert Planning Evidence

(c) The report prepared under s42A of the RMA on behalf of the consent authority, by consultant consents planner Danielle Petricevich (**the s42A report**), undated but circulated on 4 July 2025.

(d) The planning evidence of Lisa Thorne, on behalf of the applicants', dated 11 July 2025; and

Relevant legislation

(e) Resource Management Act 1991 (**RMA**);

(f) Resource Management (National Environmental Standards for Freshwater) Regulations 2020 (**NES-F**);

(g) National Policy Statement on Freshwater Management 2020 (**NPS-FM**);

(h) National Policy Statement for Indigenous Biodiversity 2023;

(i) New Zealand Coastal Policy Statement 2010;

(j) Local Government Act 2002 (**LGA**); and

(k) Soil Conservation and Rivers Control Act 1941.

Local planning framework

(l) Southland Regional Policy Statement 2017 (**RPS**);

(m) Proposed Southland Water and Land Plan, Court version dated May 2024 (**SWLP**);

(n) Proposed Southland Water and Land Plan, Decisions version dated April 2018;

(o) Regional Coastal Plan for Southland 2013;

(p) The Southland Flood Control and Drainage Management Bylaw 2020 (**the Bylaw**)

(q) Te Tangi a Tauira the Ngai Tahu ki Murihiku Natural Resources and Environmental Iwi Management Plan 2008; and

(r) The Southland Murihiku Conservation Management Strategy 2016.

Other relevant documents

(s) Pre-hearing meeting documentation;

(t) Wetlands Wetland Delineation Protocols (**WDP**), Ministry for the Environment 2022; and

(u) Various technical reports and various expert evidence prepared for the hearings of the proposed Southland Water and Land Plan (as identified throughout my evidence).

EXECUTIVE SUMMARY

12. All parties agree that the lagoon benefits from periodic opening, and the need to open the lagoon to provide for ecological, water quality, biosecurity, and fish passage. However, for opening when water levels in the lagoon reach a certain height (trigger level) there is disagreement over the range of values that opening should accommodate, and the relevance of the historical opening regime.

13. Overall, it is my opinion that the applicant has adopted a very narrow and perhaps overly simplified approach to the application, that advantages and enables the outcome they seek. The s42A report generally concurs with the applicant, other than on a few relatively minor points.

14. I believe both the application and the s42A report have failed to adequately identify and consider:

    (a) An apparent conflict between this application and requirements in the NPS-FM, the RPS and SWLP to ensure integrated management of freshwater, land and the coast through the Waituna Freshwater Management Unit (**FMU**) limit setting process.

    (b) The presence of Environment Southland's Flood Control Works (which are regionally significant infrastructure), being Waituna Creek and its tributaries, as the major source of freshwater inflow to the lagoon. The presence of these Flood Control Works raises two key issues:

        (i) Whether there is any potential adverse effect associated with Environment Southland making this application to exercise one function in a way that potentially undermines or neglects another function; and

        (ii) Whether the proposed application may have adverse effects on the Flood Control Works, being potential bank erosion and obstructed outfall.

    (c) Whether the lagoon is a wetland under the NPS-FM, and if so, how the NES-F Regulations then apply.

15. The application and the s42A report correctly identify that the existing environment is one where there is no current authority to open the lagoon. However, I am concerned that as a result of framing this proposal as merely lowering a naturally elevated water level, the true nature of potential effects on this unique area with a unique history, are obscured. This approach enables the raising of water levels beyond historic norms established over a century of lagoon opening by the community and Environment Southland, to be overlooked. It denies submitters the opportunity to challenge the proposal, and it prevents decision-makers from considering flooding and inundation effects on regionally significant infrastructure and neighbouring land.

16. I am also concerned by the failure of the s42A report to assess whether the proposed water trigger levels for opening are appropriate, given these are central to understanding the effects of the activity, and whether the activity will achieve its intended outcomes.

17. A full understanding of these matters is essential for decision makers when considering all of the actual and potential effects of the proposal, and application of the of the planning framework under s104(1), including whether the effects are minor and not contrary to the planning framework, as required for a non-complying activity under s104(D).

SUMMARY OF SOUTHLAND FEDERATED FARMERS SUBMISSION

18. Southland Federated Farmers submission opposes the application.

19. While overall Southland Federated Farmers support opening Waituna Lagoon to support ecological health and cultural values, Southland Federated Farmers are concerned that any regime needs to consider the productive potential of adjacent farmland and seek a balance with provision for the social and economic wellbeing of the local community.

20. Southland Federated Farmers were specifically concerned that a water levels of 2.5m for summer openings will harm both the lagoon and surrounding land, more than under the historic opening regime of 2.0m to 2.2m.

21. Southland Federated Farmers sought:

(a) A catchment-focused, balanced, and well-managed opening and closing regime to ensure the ecological wellbeing of the lagoon and needs of the community and wider environment.

(b) More active community involvement as part of this process in future, rather than as a stand-alone consent consultation process.

(c) A shorter consent time frame (10 years) to allow for a review of the ecological wellbeing of the lagoon and a readjustment if needed.

(d) A limit of 2.2m water trigger level.

(e) Annual winter opening for migratory fish passage.

(f) That the opening location is flexible to allow for access and dealing with specific issues (for example, algal bloom).

(g) Direct and ongoing local community engagement as part of the consent conditions, with key contact people for the community.

(h) Regular groundwater and surface water monitoring on farmland impacted by potential flooding.

(i) Regular monitoring to determine if the change in management of the lagoon is having the desired outcome. The monitoring should also determine what negative effects are occurring to neighbouring landowners.

APPLYING KI UTA KI TAI

22. Overall, it is my opinion that the applicant has applied a very narrow and perhaps overly simplified lens to the application, that advantages and enables the outcome they seek. This appears to be, at least in part, because the applicant considers that:

(a) lagoon opening for land drainage purposes is prohibited by regulation 53 of the NES-F[1]; and

(b) as there is no current lawful basis for opening the lagoon, the effects of this application represent a lowering of water and

[1] Application, section 3.1.

groundwater levels, rather than raising them beyond the levels of the historic opening regime[2].

23. In my opinion, the application and the s42A report both inadequately identify and assess the application against integrated catchment management requirements.

24. The application and the s42A report have both failed to identify the presence and significance of the Flood Control Works (regionally significant infrastructure) that outfall into the lagoon and assess the effects of the application on that infrastructure.

25. Freshwater management requires an integrated approach that considers the effects of the use and development of land on a whole-of-catchment basis[3]. This is reflected in both the RPS and the SWLP:

(a) The RPS, Chapter 2 states:

Integrated management acknowledges the inextricable connection between air, water, land and all living things. The knowledge that resources are integrated and must be managed as such, is encompassed by the Ngāi Tahu philosophy of "ki uta ki tai" – from the mountains to the sea. Recognising the concept of "ki uta ki tai" and fostering integrated management will help the Southland Regional Council to promote the sustainable management of the natural and physical resources of the region.

(b) The SWLP preamble states that Environment Southland:

seeks to manage water and land resources in a way that encompasses the Ngāi Tahu philosophy of "ki uta ki tai". This integrated approach recognises that water is important in a variety of ways, including for customary and recreation uses, mahinga kai, drinking water, agricultural production, irrigation, hydro-electricity generation, fisheries and tourism. This approach also recognises that the Southland Regional Council is committed to managing the connections between land and all water, particularly the effects of water quality and quantity changes on the health and function of estuaries and coastal lagoons.

(c) Objective 1 of the SWLP read as follows:

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2 Application, section 9.9, page 96.

3 NPS-FM, Policy 3

Land and water and associated ecosystems are sustainably managed as integrated natural resources, recognising the connectivity between surface water and groundwater, and between freshwater, land and the coast.

(d) Policy 39A of the SWLP specifically requires that when considering the cumulative effects of land use and discharge activities within whole catchments, that consideration is given to how to improve the integrated management of freshwater and the use and development of land including the interactions between freshwater, land and associated ecosystems (including estuaries and the wider coastal area).

26. The RPS and SWLP establish clear requirements to ensure integrated management approach in Southland encompasses Ki Uta Ki Tai. In my opinion, neither the application nor s24A report adequately address how this non-complying activity supports, and is not contrary to, the Ki Uta Ki Tai approach.

Freshwater Management Units

27. The SWLP gives effect to the NPS-FM 2014 (as amended in 2017), noting it has now been superseded by the NPS-FM 2020. However, both versions require the management of freshwater through the establishment of FMU and consequently, the SWLP has a suite of FMU policies (policies 44-47).

28. Policy 46 of the SWLP identifies 'Waituna' as an FMU. In Environment Southland's Decisions Version of the SWLP, the Waituna catchment was a sub-unit within the Mataura – Toetoes Harbour FMU[4], but through appeal submitters were successful in achieving a standalone Waituna FMU, because of its unique and significant values, and wider catchment issues[5].

29. The SWLP states that:

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4 SWLP Decisions Version Part A April 2018, Policy 46, and section 42A report (para 6.246).

5 For example, *Statement of evidence of Kathryn Jane McArthur on behalf of the Royal Forest and Bird Protection Society of NZ in the matter of the proposed Southland Regional Water and Land Plan*, 15 February 2019, paragraphs 97-101.

through the FMU limit setting process, freshwater objectives, policies, limits and rules will be developed for each FMU. These will be tailored to respond to the pressures faced within each particular catchment. As the FMU limit setting process proceeds, the region-wide objectives, policies and rules in the Plan may be added to or replaced by the freshwater objectives, policies, limits and rules specific to each FMU. The Southland Regional Council intends to complete its FMU limit setting programme by December 2025[6].

30. Implementation of the FMU approach will also ensure integrated management, community engagement, the identification of catchment values and an action plan to ensure progress toward any desired outcomes.

31. I consider that the Waituna FMU process is necessary to support the improvement and management of complex freshwater issues within the catchment and to support ecological health.

32. In my opinion, the FMU process is hugely beneficial given the absence of clear and integrated policy direction in the RPS and SWLP on this nationally and internationally important wetland complex. I agree with the s42A report that "*the SWLP does not provide fulsome coverage of this proposal as a unique activity*"[7]. I am surprised that this is the case, given that serious concerns of deteriorating water quality in the lagoon that could cause the lake to 'flip' - experience a sudden change from macrophyte dominated clear water state, to a de-vegetated, turbid water state - were identified to Environment Southland, at least as far back as 2010[8].

Addressing FMU values where there is conflict or tension

33. An important step in FMU development is identifying values, setting environmental outcomes, and preparing action plans to achieve those outcomes[9]. Environment Southland Flood Control Works serve a large area of the catchment, with outfall to the lagoon (discussed in detail in paragraphs 47-59 below).

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6 SWLP (May 2024), Introduction, page 12.

7 S42A report, paragraph 2.8.2.

8 Southland Water 2010: Our Ecosystems Technical report for lakes and lagoons, prepared for Environment Southland by Opus International Consultants Ltd.

9 NPS-FM, clause 3.9.

34. In my opinion it is likely that the community will seek to incorporate this flood control aspect within the catchment values, given the Flood Control Works have been identified as regionally significant infrastructure and given the submissions on this application.

35. Regardless, the FMU process will need to account for inputs from the Flood Control Works, particularly as it is a key contributor of water flow, sediment and nutrient to the lagoon[10].

36. In my opinion, the FMU process also provides an opportunity to consider whether the Waituna Lagoon is better served by being managed as a lake (with wetlands occupying its margins), rather than as a wetland[11]. RPS Method WQUAN.1 (g) identifies that regional plan provisions could –

set lake level regimes, including maximum levels for lakes, in order to manage effects on adjacent land and wetlands, and to manage land use activities that may be affected by high lake levels.

37. The FMU process may also allow better integration of requirements of the Reserve Acts 1977 which apply to Waituna Lagoon Scientific Reserve. I note that this opportunity may also be used to work through Ngāi Tahu ki Murihiku concerns about legal barriers to access Waipārera including when it was given status of scientific reserve in 1983[12].

Aligning this application with the FMU approach

38. Policy 40 of the SLWP provides guidance on consent terms. Under Clause 7 consideration should be given to –

the timing of development of FMU sections of this Plan, and whether granting a shorter or longer duration will better enable implementation of the revised frameworks established in those sections.

39. "*This application is for an opening regime to maintain and restore the ecological health and cultural values of the lagoon ecosystem, by*

10 For example, Cawthron Institute report no 2587, Riparian and tuna habitat quality in the tributaries of Waituna Lagoon, Southland, May 2015.

11 If this is possible, as discussed in paragraphs 82-95 of this evidence.

12 Application, section 9.6.2, page 93.

transitioning to a more ecologically optimal opening regime over a 20-year term"[13].

40. Neither the application nor the s42A report has had regard to the effect of this proposal on development of the Waituna FMU, or Policy 40.

41. Irrespective of the clear guidance given in Policy 40, and without consideration of the upcoming FMU limit setting process, the s42A report recommends the 20 year term of consent sought by the applicant, be granted.

42. This is further complicated as the regulatory authority leading development of the FMU framework is also one of the applicants.

43. While all parties are in agreement that the lagoon benefits from periodic opening, there is disagreement over the range of values that opening should accommodate, and the relevance of the historical opening regime.

44. While a consent is needed to open the lagoon for any reason, this consent application should not function as a replacement for the consultation that is required in addressing issues across the entire FMU, including flood management, and determining how competing or conflicting values and activities are to be managed.

45. In my opinion, if the hearings panel decide to grant this consent, it should be for a considerably shorter term aligned with FMU development. It is my opinion that the 10 years sought by Southland Federated Farmers is still too long, given the FMU context, the uniqueness of the catchment, and the concerns I raise regarding the Flood Control Works in paragraphs 47-73 of this evidence.

46. The granting of a longer term of consent subject to review conditions should not be used in lieu of an appropriate consent term. A condition to review consent conditions in the future cannot prevent the consent from being implemented for its intended purpose or duration.

[13] Application, section 3, page 15.

FLOOD CONTROL WORKS

47. The history of lagoon openings is detailed in section 7 of the application, and it is acknowledged that the lagoon has been mechanically opened by various people since the early 1900s.

48. Waituna Lagoon also functions as the receiving environment for both natural and facilitated land drainage, which has unfortunately led to increased nutrient and sediment loading within the Lagoon.

49. Historically, various legislation empowered councils and catchment boards to carry out drainage works and improve watercourses and outfalls for water[14]. Regardless of the specific legislation used for their construction, the Southland Flood Control and Drainage Management Bylaw 2020 (**the Bylaw**) identifies that Waituna Creek and its various tributaries are part of the Environment Southland Drainage Network[15] (see Appendix 1 of this evidence).

50. Waituna Creek is the largest stream and catchment draining into the lagoon. The catchment makes up an estimated 64% of land area, and around 64% of average flows into the lagoon[16].

51. Under the Bylaw, Waituna Creek and some of its tributaries are both Drains, and Flood Control Works as defined by section 4 of the Bylaw:

***Drain** means a channel, either artificially constructed or a modified watercourse, which is used to manage the water table. For the purposes of this Bylaw, means any drain as shown in Appendix 2.*

***Flood control works** means:*

(a) any dam, weir, bank, spillway, groyne, reservoir;

(b) any structure or appliance of any kind;

(c) any drain, excavation, floodway;

(d) any vegetation planting and/or vegetation management;

that is managed by or on behalf of the Council and that has or is intended to have the effect of stopping, diverting, controlling or restricting or otherwise regulating the flow or spread of flood water in

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14 Including the Southland Land Drainage Act 1935, Soil Conservation and Rivers Control Act 1941.

15 Bylaw Appendix 2 – Map: M9.

16 Based on simple calculations using area and flow data reported in section 2.1 of the Waituna Landcare Group environmental health assessment of the Waituna Catchment, Ryder Consulting, August 2003.

or out of a body of water or the flow or spread of flood water including surface flood water.

For the purposes of this Bylaw, flood control works include, but are not limited to, any dam, drain, fence, flap gate, floodway, stopbank or tide gate as shown in Appendix 2.

52. Environment Southland state their land drainage and river catchment programmes "*aim to reduce the risk of flooding and soil erosion, reduce the amount of sediment entering waterways, improve water quality, improve river stability and improve river environments. Working closely with communities and catchment liaison committees means that issues of concern are identified, and sustainable solutions are agreed and actioned*."[17]

53. Local landowners pay for this service via targeted rates. To maintain drainage capacity for the Waituna Creek Flood Control Works (**Flood Control Works**), Environment Southland is meant to undertake periodic bank reshaping and mechanical clearing of aquatic weeds and deposited sediment using diggers. They also have a bank stabilisation programme.[18,19] In my opinion, this programme has likely been implemented to address evidence reported in a 2013 evaluation of sediment that concluded "*the majority of sediments was sourced from stream banks*…"[20].

Lagoon opening as 'maintenance' and 'operation' of Environment Southland Flood Control Works

54. The efficacy of the Flood Control Works in the lower catchment is directly affected by water levels in the lagoon. Environment Southland has historically relied on the Lake Waituna Control Association (**LWCA**) to undertake openings, with the knowledge and support of Environment Southland and its predecessors[21] up until they lost opening rights in 2022[22], although Environment Southland have also

17 Environment Southland website: drainage management

18 Environment Southland website: drainage management

19 Cawthron Institute, Waituna Creek instream restoration trial assessment, report no 3671, November 2021.

20 Waituna Sediment Fingerprinting Study, Agresearch, October 2013.

21 Application, section 7.1.1, page 67.

22 Pers comm, Ewen Pirie (former LWCA chair and current co-chair of the Waituna Lagoon Catchment Committee).

independently used their emergency powers under the RMA to alleviate flooding:

(a) On **23 September 2024** emergency powers were exercised because "*the lagoon had been very high for several weeks, sitting above 2.5m and this was impacting our communities, the roads, paddocks and farming activities in the area*", and "*To prevent ecological harm, we have made the decision to open the lagoon, which will also support the community*.[23]"

(b) On **30 May 2018** emergency powers were exercised because it **"***was an appropriate time to open the lagoon to the sea, as the high water levels are now clearly affecting surrounding farmland*".[24]

(c) On **23 July 2013** emergency powers were exercised because **"***The decision to open the lagoon was made after the water level in the lagoon had exceeded the 2-metre trigger level and was dropping only very slowly, with more rain forecast later in the week*".[25]

55. Insofar as I have been able to ascertain, retrospective consents were not sought by Environment Southland under s330A(2) of the RMA. In my opinion, if no retrospective consents were sought, this illustrates that Environment Southland does not consider that "*the adverse effects of the activity continue*" after the opening activity is completed.

56. In my opinion, this illustrates that periodic lowering of lagoon levels in certain conditions – for example, when the water level is high, land in the catchment is saturated, and further rain is forecast – is necessary to ensure performance of the Flood Control Works.

57. In my opinion, integrated management of the lagoon including its interface with the Flood Control Works is not well addressed in Southland's planning framework or the application. Only Policy 7.4.2.2 of the Regional Coastal Plan provides any specific recognition of

23 23 Sept 2024 news release on the Environment Southland website.
24 30 May 2018 news release on the Environment Southland website.
25 23 July 2013 Environment Southland press release, hosted on the Scoop website.

lagoon opening for drainage and flood management, although it does not apportion responsibility. The policy reads:

Policy 7.4.2.2 - The status of the Waituna Lagoon

Recognise the status of the Waituna Lagoon as a major part of the Waituna Wetlands Scientific Reserve when considering its opening for the purpose of relieving adjoining land and infrastructure from the adverse effects of inundation.

Explanation - The Waituna Wetland is of international importance as a wildlife habitat, and the lagoon itself has been rated as "outstanding" in the "Wetlands of National Importance to Fisheries" database. However, when the mouth blocks, the lagoon gradually fills with water and can impact upon farmland, public roads and bridges. It is necessary, therefore, to develop means of overcoming these adverse effects. In the past, this has been achieved by implementing a regime for the opening of the lagoon. In considering whether opening should occur impacts upon the wildlife and indigenous vegetation values of the wetland need to be taken into account.

58. Finally, the role of the lagoon as part of the operation of Environment Southland's Flood Control Works is not precluded by the Bylaw:

(a) The purpose of the Bylaw is to –

manage, regulate and protect the effective operation and integrity of flood control works owned by, or under the control of the Southland Regional Council.[26]

(b) Flood control works includes any dam, bank or reservoir –

that is managed by or on behalf of the Council and that has or is intended to have the effect of stopping, diverting, controlling or restricting or otherwise regulating the flow or spread of flood water in or out of a body of water or the flow or spread of flood water including surface flood water.

flood control works include, <u>but are not limited to</u>, any [feature] shown in Appendix 2 (emphasis added).

59. In summary, and in my opinion, Environment Southland's use of emergency powers, and previous involvement and support of the LWCA openings, suggests that periodic lagoon opening is a necessary part of Flood Control Works maintenance and operation in its lower reaches, to both alleviate flooding and to address the effects of sedimentation associated with the Flood Control Works.

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[26] Southland Flood Control and Drainage Management Bylaw 2020, section 3.1, purpose.

60. However, I note that Environment Southland have not previously held any consent to open the lagoon and are not seeking consent to open the lagoon for flood control management purposes. At the time of writing this evidence, expert conferencing with the applicants' planner and the s42A report writer has not occurred.

61. In my opinion, it would be useful to understand the independent position of Environment Southland's drainage management team regarding this matter.

Implication of lagoon opening as part of Flood Control Works maintenance and operation

62. If lagoon opening is part of Flood Control Works maintenance or operation, to avoid the need to use emergency powers under the RMA Environment Southland would need to ensure it has the appropriate authority to open the lagoon for the purposes of ensuring efficient operation of their Flood Control Works.

63. Alternatively, if Environment Southland seek to make changes to the level of service provided to ratepayers for Flood Control Works (i.e. raise the level at which the lagoon is opened to alleviate flooding and obstruction of drainage outfall), then they must meet the requirements of the LGA[27].

64. I discuss the functions of Environment Southland further in paragraphs 74-81 of this evidence. It is unclear if in making this application, what consideration has been given to this matter, or if the necessary consultation under the LGA has occurred. Further, the 'existing environment' as applied to this application prevents meaningful discussion of raising water levels in the lagoon, by proposing to only consider the effects of lowering lagoon levels because there is no current lawful authority that allows lagoon opening to occur. It is my opinion this consent process is not a suitable means of consulting on Flood Control Works levels of service.

[27] For example, Schedule 10 clauses 2 and 4.

Planning framework provision for the Flood Control Works

65. Both the RPS and SWLP recognise and provide for "*flood and drainage infrastructure managed by the Southland Regional Council*":

(a) Flood infrastructure is included in the RPS definition of 'strategic facility', which in turn is considered both 'critical infrastructure' and 'regionally significant infrastructure', as specified within those definitions (see Appendix 2 of this evidence).

(b) The SWLP also includes definitions for both 'critical infrastructure' and 'regionally significant infrastructure'. While the definition for 'critical infrastructure' uses the term 'strategic facility', strategic facility is not defined in the SWLP. It is therefore reasonable, to apply the RPS definition of 'strategic facility' in the absence of an SWLP definition, when considering the planning framework of the SWLP.

66. The RPS and the SWLP infrastructure provisions have not been assessed in the application or the s42A report.

Effects of this application on Flood Control Works

67. The application acknowledges "*The most downstream parts of the Creeks are strongly affected by lagoon level*…"[28]. Waituna Creek, the main tributary to the lagoon, is Flood Control Works.

68. Excessive infilling of the lagoon (lake) bed by sediments derived from erosion has been an historical issue and is recorded in Environment Southland monitoring data[29]. A scientific report from 2013 concluded "*The majority of sediment was sourced from stream banks in the Waituna Creek catchment (64 and 94% at the upstream and downstream sites, respectively), with the remainder attributed to topsoil. This was attributed to a combination of bank collapse and drain clearing*", and "*eroded material may also be enriched in nutrients…, in particular phosphorus*" [30].

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28 Application, section 5.2.1, page 43.

29 Interim recommendations to reduce the risk of Waituna Lagoon flipping to an algal-dominated stated, Lagoon Technical Group, May 2011.

30 Waituna Sediment Fingerprinting Study, Agresearch, October 2013.

69. The proposed higher lagoon opening levels have been established by the Science Advisory Group[31], which does not include a Environment Southland River / Catchment Engineer. The application does not specify if any regard was given to effects on the Flood Control Works when recommending those levels.

70. All those landowners serviced by the Flood Control Works upstream have a reasonable expectation that water will be safely conveyed to an appropriate outfall, and that it will not subsequently contribute to the flooding of land in the lower reaches of the catchment, and that bank erosion issues will be addressed.

71. In my opinion, high water levels in the lagoon risk exacerbating bank collapse, including of Waituna Creek Flood Control Works. This will affect sedimentation and increase nutrients, and in particular phosphorus.

72. In addition, if lagoon opening is a necessary part of the operation of the Flood Control Works, then the application raises an additional concern – the effect of Environment Southland exercising one function in a way that potentially undermines another function. In my opinion, the operation of the Flood Control Works is directly related to the activity of periodic lagoon opening.

73. However, there is no recognition of the Flood Control Works in the application or the s42A report, and consequently there is no assessment of effects of the proposal on performance of this critical and regionally significant infrastructure.

THE FUNCTIONS OF ENVIRONMENT SOUTHLAND

74. The regional council applicant has statutory functions under the RMA not only to protect wetlands and manage freshwater ecosystems but also address natural hazards and water flows and levels[32].

75. The regional council applicant also has a function under the Soil Conservation and Rivers Control Act 1941 to minimise and prevent

31 Application, section 7.3, page 70.

32 Section 30(1) of the RMA.

damage within its district by floods and erosion (see Appendix 3 of this evidence). Environment Southland have identified their Flood Control Works as regionally significant infrastructure in the RPS and SWLP, highlighting its importance.

76. Regional councils are also required to take an integrated approach to resource management[33], and manage freshwater in an integrated way that considers the effects of the use and development of land on a whole-of-catchment basis[34]. This is consistent with the philosophy of Ki Uta Ki Tai.

77. As a component of the wider catchment Flood Control Works, the lagoon's ability to be opened and managed directly influences water levels, land drainage outcomes, and the protection of adjacent land and infrastructure.

78. The proposed application appears to prioritise lagoon management for ecological health and cultural values to the detriment of Environment Southland's other statutory functions. Environment Southland does not explain their position regarding its Flood Control Works, or of any wider consultation including decision-making that might have occurred regarding those duties and the level of service provided

79. Given that local landowners contribute to this scheme through targeted rates, it is reasonable to expect that Environment Southland's responsibilities as a flood protection, flood control and drainage authority be meaningfully reflected in this process. Decisions on lagoon level thresholds have implications that extend well beyond ecological and cultural considerations.

80. In applying for this consent, if Environment Southland exercises one function in a way that undermines or neglects its other functions, in a manner that can cause adverse effects, then the hearings panel is entitled to consider that matter because the activity has a non-complying status, and because the panel is enabled to do so as part of their evaluation under section 104(1) of the RMA.

33 Section 30(1)(a) and (gb) of the RMA.

34 NPS-FM, Policy 3.

81. The application clarifies the applicants' position is that lagoon openings for 'land drainage purposes' are a prohibited activity under the NES-F, regulation 53[35]. However, lagoon openings for the operation of 'specified infrastructure' are provided for by regulations 46 and 47 of the NES-F. The applicants' position on regulations 46 and 47 has not been clarified in their application.

APPLICATION OF NATIONAL DIRECTION ON FRESHWATER MANAGEMENT

82. The application and the s42A report consider the opening application to be a restricted discretionary activity under regulation 39 of the NES-F as it is for the purpose of natural inland wetland restoration, and wetland maintenance. They consider the proposed activity does not comply with all of the conditions in regulation 38(4)[36].

83. It is critical to note that all of the NES-F Regulations establishing restrictions for wetlands (being regulations 38-54), apply to activities that occur 'within' a natural inland wetland or, 'within a setback' of 10 m or 100 m of a natural inland wetland.

84. In my opinion the application and s42A report do not give appropriate consideration to applying the NES-F.

Is Waituna Lagoon a 'natural inland wetland'

85. The application states "*The applicants are aware of the positions of various parties with an interest in Waituna vary regarding its status as a lake or wetland*"[37]. The applicants do not provide any further clarification of an apparent conflict in views.

86. The application then states "*It is the applicants view that as the lagoon is a part of the wider Awarua Wetland Complex, is mapped as a Regionally Significant Wetland in the SWLP, is outside the CMA, and*

35 Application, section 3.1.

36 Application, section 4.4; section 42A report, para 2.5.5 and 2.5.6.

37 Application, section 4, page 26.

supports a natural ecosystem of plants and animals, that it is a wetland under the RMA and relevant statutory documents"[38].

87. I consider the applicants' assessment and the s42A report overlook key details. I have provided my analysis of the planning status of the Waituna Lagoon as a wetland under the provisions of the NES-F and NPS-FM in Appendix 4.

88. I consider the 'Awarua Wetlands' / Waituna Lagoon Scientific Reserve to be a wetland complex, comprising a lagoon - being an Intermittently Closed and Open Coastal Lake or Lagoon (ICOLL) - with wetland along the landward margins. It is my layperson's opinion that the ICOLL does not qualify as a wetland under the Wetland Delineation Protocols (**WDP**)[39]. It is the marginal land area that is a wetland, with hydric soils and plant communities dominated by obligate wetland plant species.

89. Regional councils' have a responsibility to identify and map wetlands, and there is inconsistency and uncertainty in how Environment Southland have identified the lagoon as a regionally significant wetland. However, the lagoon is unquestionably identified as a 'sensitive water body' with the associated mapping showing the lagoon only as a sensitive waterbody. It is not mapped as a regionally significant wetland (see Appendix 5 of this evidence).

90. Clause 3.23(3) of the NPS-FM states that in the case of uncertainty or dispute, the regional council must have regard to the WDP. The WDP considers three primary indicators to confirm a wetland – hydrology, soil and vegetation.

91. The applicant has stated that they have not applied the WDP[40].

92. In my opinion, the lagoon may not be classified as a wetland under the WDP[41], and most importantly, the lagoon at or within 100m of the

38 Application, section 4, page 27.

39 *Wetland delineation protocols*, Ministry for the Environment, 2022.

40 Pers comm, Lisa Thorne, 2 July 2025.

41 In my opinion, this would provide a potentially strategically advantageous opportunity to consider whether the lagoon is better managed as a lake when the FMU is developed.

proposed opening locations. The applicant should have engaged a suitably qualified and person to apply the WDP to avoid any confusion given the status of the lagoon as a wetland under NPS-FM provisions, is in dispute.

What effect would this have on the application?

93. If the lagoon itself is not a wetland, then the NES-F regulations do not apply, including:

    (a) Regulation 39, that provides for activities for the purpose of natural inland wetland restoration, wetland maintenance, or biosecurity.

    (b) Regulation 53, that prohibits the draining of a wetland.

94. If the lagoon itself is a wetland, then regulations 39 and 53 would apply.

95. If the lagoon is a wetland, and if opening is a necessary part of Flood Control Works maintenance or operation, regulations 46 and 47 of the NES-F provide for Environment Southland to undertake various activities to operate maintain and operate their 'specified infrastructure', should they deem this necessary. Regulation 46, if applicable, may also have an impact in determining the existing environment as it provides a permitted baseline.

EXISTING ENVIRONMENT

96. There is currently no resource consent to open the lagoon, and opening cannot be undertaken as a permitted activity. Therefore, as stated in the application, as defined by case law, "*the receiving environment upon which effects must be assessed is the lagoon as is, where lagoon levels naturally fluctuate …"*[42]*. "The opening of the lagoon therefore results in lower water and groundwater levels on surrounding land uses, compared to no consent being in place*"[43].

42 Application, section 9.1.2, page 75.

43 Application, section 9.9, page 96.

Essentially, any high water levels in the lagoon are not an adverse effect of the proposed activities but a result of natural fluctuations.

97. I note that application of regulation 46 of the NES-F may have some impact on the permitted baseline as it permits work in wetlands to operate and maintain specified infrastructure. However, it has not been established if the lagoon is a wetland, and whether lagoon opening associated with the Flood Control Works meets these criteria. An evaluation of the lagoon using the WDP, with focus on the area of the proposed opening locations, would assist.

98. Otherwise, I agree with the application and the s42A report that this is technically correct.

99. However, I consider this interpretation does not recognise over a century of active water level management that is more reflective of the existing environment. Periodic, regular, active opening is what has occurred, and what the environment has presumably adapted to. The lagoon has not been left to function passively in its 'natural' closed state.

100. In my opinion, by framing the proposal as merely lowering a naturally elevated water level, the application process is enabled to overlook the fact that it would actually raise water levels beyond historic norms. This fails to recognise the historic management regime by the community and Environment Southland and obscures the true nature and extent of the effects.

101. Key effects of concern that would be considered if proposal was framed to recognise the raising of water levels beyond the historic management regime include:

(a) Bank erosion and sedimentation.

(b) Higher groundwater levels, land saturation and nutrient mobilisation.

(c) Existing land uses, including economic and social effects.

(d) Existing vegetation on riparian margins and on affected land.

(e) Effects on infrastructure, including private drainage systems[44], the road and bridge.

(f) Restrictions on public access.

(g) Migration of pest birds from the lagoon onto surrounding land.

(h) Extension of wetland conditions onto private land, which may create wetland habitat that would result in further restrictions on land use.

102. In my opinion, not considering these effects lacks natural justice by denying submitters (and particularly ratepayers for the Flood Control Works) an opportunity to challenge this proposal.

103. Also, it is my opinion that the hearings panel should take the opportunity to consider the utility of existing case law for this application when assessing potential effects under section 104(1)(a) of the RMA, and recognise the historic opening regime as part of the existing environment for the following reasons:

(a) Waituna Lagoon is a unique place, deserving of bespoke consideration, as reflected through the creation of a stand-alone FMU in the SWLP. Waituna was the only additional FMU established through the plan development process and is the smallest FMU in Southland.

(b) Disregarding the historical and long-standing practice of lagoon openings risks presenting an incomplete picture of the receiving environment. Lagoon opening has significantly influenced the physical and ecological character of the lagoon over time. Excluding this context on the basis of current case law could be considered a selective interpretation of the existing environment and may not reflect the reality of how the lagoon has functioned historically or how it is expected to function in future under an appropriately managed regime.

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44 Which are defined as 'infrastructure' under section 2 of the RMA (included in Appendix 2 of this evidence), and may, by extension under RPS and SWLP definitions, also be considered critical and regionally significant infrastructure because, if interrupted, could have a significant effect on the wellbeing and health and safety of people and communities.

(c) I believe these legacy effects of regular historic lagoon opening are inseparable from the existing environment. The difficulty of evaluating the effects of this application on a 'no-opening' basis is demonstrated in the applicant's own Assessment of Environmental Effects[45] which makes frequent comparisons of the effects of the proposed opening regime against the previous opening regime, because in my opinion, this is simply the logical baseline to use. The historical management regime is fact and should not be overlooked.

EVALUATION OF TRIGGER LEVELS

104. Notwithstanding my position that allowing the historic opening regime should be considered as part of the existing environment (as outlined in paragraphs 96-103 above), I am troubled with position stated in the 42A report which states:

> *The scope of the assessments undertaken in this report are based on the application … and receiving environment .., as at the time of writing this report. To be clear this means the assessment relates to the effects of opening the lagoon to the Coastal Marine Area (CMA), including the effects of opening at the various proposed water levels and/or as a result of one of the other ecological or water quality triggers (including providing for fish passage). It does not include the effects of the lagoon remaining closed until a particular tigger [sic] is met, nor the Applicant making a determination to not exercise the consent when a trigger is met. As such, outside of assessing the effects of opening the lagoon as a result of the proposed triggers,* ***this assessment does not comment on the appropriateness of the water level triggers****.*[46] *(emphasis added).*

105. This application is to open the lagoon to maintain and restore the ecological health and cultural values of the lagoon. I believe the water level triggers of lagoon opening to be a critical consideration for the assessment of effects to determine:

(a) whether the preferred timing and levels best achieve the stated purpose of the application; and

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45 Application, Section 9.

46 S42A report, paragraph 1.2.3 and 1.2.4.

(b) whether the lagoon should be opened sooner (at a lower level), or later (at a higher level) to achieve those objectives.

106. It is unclear why the s42A report has taken this position. It is my opinion that a report that explicitly declines to assess the water level triggers fails to fully evaluate the likely effects of the proposed activity.

107. Further, as the applicant has discretion not to act when a trigger is met, the effects regime becomes uncertain and there is a risk that key ecological or hydrological outcomes will not be achieved.

108. In my opinion, it is not acceptable for a s42A report to exclude an assessment of whether the proposed water level triggers are appropriate. This omission undermines the fundamental purpose of the effects assessment required under section 104(1)(a) of the RMA. The proposed triggers and their implementation are central to understanding how, when, and whether the activity will achieve the ecological and cultural outcomes it purports to deliver. Without evaluating these triggers, the report fails to assess the full range of actual and potential environmental effects.

CONCLUSION

109. In my view, the applicant has taken a narrowly focussed and perhaps overly simplified approach to the application, which appears to favour and facilitate the outcome they are seeking.

110. The RPS and SWLP establish clear requirements to ensure integrated management approach in Southland encompasses Ki Uta Ki Tai.

111. In my opinion, there is not enough information in this application to assess all of the potential effects of the activity on the environment. I believe the application and the s42A report are deficient and fail to consider:

(a) Environment Southland's position on whether lagoon opening is, or could be considered as, part of their Flood Control Works, and consequently the possibility of the need for further consent to open the lagoon for that purpose (or alternatively, under the emergency provisions of the RMA). Exercising one function in a

way that undermines or neglects its other functions, in a manner that can cause adverse effects, is a matter the hearings panel is entitled to consider.

(b) The effects of the activity on the Flood Control Works, and an evaluation against the planning framework for recognised critical and regionally significant infrastructure.

(c) How this activity and any consent granted might adversely affect upcoming work on the Waituna FMU, and whether it is appropriate to grant any long-term activity that may pre-determine competing values and conflicts within the catchment, including the possibility of authorising effects considered incompatible with the FMU once that position is established.

(d) Whether the lagoon itself, at and within 100m of the proposed opening sites, is a wetland under the WDP. This is an NPS-FM requirement where there is uncertainty or dispute, and it affects how critical NES-F regulations are applied.

112. With regard to the assessment of effects against the existing environment, while the applicants' approach is technically correct, I am concerned that framing this proposal as merely lowering a naturally elevated water level, the application overlooks the fact that it would actually raise water levels beyond historic norms and over a century of active lagoon opening by the community and Environment Southland. This interpretation obscures the true nature of potential effects and avoids the need to consider flooding and inundation effects on critical and regionally significant infrastructure, and on neighbouring land.

113. In my opinion, the failure of the s42A report to assess the appropriateness of the proposed water level triggers renders the assessment purpose of the effects assessment under section 104(1)(a) of the RMA woefully incomplete, as these triggers are central to understanding whether the activity will achieve its intended ecological and cultural outcomes.

114. Finally, I believe any consent granted should be for a short term, to enable development of the Waituna FMU planning framework. For

quality and long-lasting solutions, integrated management, and community involvement, the long-term opening regime should be addressed through the FMU process.

115. In summary, I believe that should the applicants wish to work collaboratively with their community, that an application to open the lagoon to protect its various values, enhance wetland health, avoid adverse effects on surrounding land uses, and uphold environmental, social, cultural and economic well-beings, is entirely possible. It is up to the applicant whether it is through amendment to this consent application, or through a future FMU process.

APPENDIX 1: MAP M9 OF THE SOUTHLAND FLOOD CONTROL MANAGEMENT BYLAW

APPENDIX 2: RELEVANT INFRASTRUCTURE DEFINITIONS

Note: bolded emphasis shown within the provisions below is added.

Section 2 of the RMA

infrastructure means—

(a) pipelines that distribute or transmit natural or manufactured gas, petroleum, biofuel, or geothermal energy:

(b) a network for the purpose of telecommunication as defined in section 5 of the Telecommunications Act 2001:

(c) a network for the purpose of radiocommunication as defined in section 2(1) of the Radiocommunications Act 1989:

(d) facilities for the generation of electricity, lines used or intended to be used to convey electricity, and support structures for lines used or intended to be used to convey electricity, excluding facilities, lines, and support structures if a person—

(i) uses them in connection with the generation of electricity for the person's use; and

(ii) does not use them to generate any electricity for supply to any other person:

(e) a water supply distribution system, including a system for irrigation:

(f) **a drainage** or sewerage **system:**

(g) structures for transport on land by cycleways, rail, roads, walkways, or any other means:

(h) facilities for the loading or unloading of cargo or passengers transported on land by any means:

(i) an aerodrome as defined in section 5 of the Civil Aviation Act 2023:

(j) a navigation installation as defined in section 5 of the Civil Aviation Act 2023:

(k) facilities for the loading or unloading of cargo or passengers carried by sea, including a port related commercial undertaking as defined in section 2(1) of the Port Companies Act 1988:

(l) anything described as a network utility operation in regulations made for the purposes of the definition of network utility operator in section 166

	Southland Regional Policy Statement 2017 Glossary and definitions	Southland Land and Water Plan Glossary
Strategic facilities	Includes: (a) **critical infrastructure**; (b) nationally significant infrastructure; (c) **regionally significant infrastructure**; (d) gas and petroleum storage facilities; (e) public healthcare facilities and medical centres; (f) fire stations, police stations, ambulance stations, emergency coordination facilities; (g) defence facilities; (h) Invercargill, Gore, Manapōuri and Milford Sound/Piopiotahi Airports, and Stewart Island/Rakiura Airstrip (Ryans Creek); (i) Southland Public Hospital (Kew); (j) lifeline utilities as defined in the Civil Defence Emergency Management Act 2002; (k) **flood and drainage infrastructure managed by the Southland Regional Council.**	No definition provided
Critical Infrastructure	Infrastructure that provides services which, if interrupted, would have a significant effect on the wellbeing and health and safety of people and communities and would require reinstatement, and **includes all strategic facilities**.	Infrastructure that provides services which, if interrupted, would have a significant effect on the wellbeing and health and safety of people and communities and would require reinstatement, and **includes all strategic facilities**.
Regionally Significant Infrastructure	Infrastructure in the region which contributes to the wellbeing and health and safety of the people and communities of the region, and **includes all critical infrastructure**.	Infrastructure in the region which contributes to the wellbeing and health and safety of the people and communities of the region, and **includes all critical infrastructure**.

APPENDIX 3: RELEVANT PROVISIONS OF THE SOIL CONSERVATION AND RIVERS CONTROL ACT 1941

10 Objects of Act

The objects of this Act are—

(a) The promotion of soil conservation:

(b) The prevention and mitigation of soil erosion:

(c) The prevention of damage by floods:

(d) The utilisation of lands in such a manner as will tend towards the attainment of the said objects.

S126 General powers of Catchment Boards

(1) It shall be a function of every Catchment Board to minimise and prevent damage within its district by floods and erosion.

(2) Each Board shall have all such powers, rights, and privileges as may reasonably be necessary or expedient to enable it to carry out its functions, and in particular each Board shall have power to construct, reconstruct, alter, repair, and maintain all such works and do and execute all such other acts and deeds including the breaching of any stopbank as may in the opinion of the Board be necessary or expedient for—

(a) controlling or regulating the flow of water towards and into watercourses:

(b) controlling or regulating the flow of water in and from watercourses:

(c) preventing or lessening any likelihood of the overflow or breaking of the banks of any watercourse:

(d) preventing or lessening any damage which may be occasioned by any such overflow or breaking of the banks:

(e) preventing or lessening erosion or the likelihood of erosion:

(f) promoting soil conservation.

(3) Except as expressly provided in this Act, nothing hereinafter contained shall be held to derogate from or prejudice the generality of the provisions of this section and the powers, rights, and privileges conferred by this section.

133 Maintenance and improvement of watercourses and defences against water, etc

(1) Subject to the provisions of this section, every Board may for the purposes of this Act, by itself, its engineers, officers, agents, and workmen,—

(a) cleanse, repair, or otherwise maintain in a due state of efficiency any watercourse or outfall for water, either within or

outside its district, or any bank, dam, groyne, or other defence against water:

(b) deepen, widen, straighten, divert, or otherwise improve any watercourse or outfall for water, either within or outside its district, or remove any groynes, stopbanks, dams, weirs, trees, plants, or debris, or any other obstructions whatsoever to watercourses or outfalls for water or to the free flow of flood waters in existing flood channels, or raise, widen, or otherwise improve any defence against water:

(c) in such manner and of such materials as it thinks necessary or proper, make any new watercourse or new outfall for water and cause the same to communicate with the sea or any arm thereof, or with any other watercourse or a lake, either within or outside its district, or erect any new defence against water, or carry out any other work it thinks necessary or desirable for the purpose of controlling or preventing damage by flood waters:

(d) divert, impound, or take away any water from any watercourse.

(2) Except in the case of urgent work to meet an emergency, where a Catchment Board proposes to exercise any of the powers referred to in the last preceding subsection in any drainage district or river district, or in respect of any watercourse or defence against water which is under the control of any local authority or other public body, the following provisions shall apply:

(a) the Catchment Board shall give to the Drainage Board, River Board, local authority, or other public body, as the case may be, not less than 1 month's notice in writing of its intention, and with such notice shall supply full particulars of its proposals:

(b) if the Catchment Board does not within the period of the notice receive any objection in writing from the Drainage Board, River Board, local authority, or other public body to which the notice was given, it may forthwith carry out its proposals:

(c) if any such objection is received and agreement cannot be reached between the Catchment Board and the Drainage Board, River Board, local authority, or other public body aforesaid, the Catchment Board shall refer the matter to the Minister, whose decision shall be final.

(3) No Catchment Board shall be entitled to exercise any of its powers in any reserve or catchment area vested in any local authority or public body for water supply purposes or in respect of any watercourse adjacent to any such reserve or area as aforesaid without the consent of the local authority or public body.

APPENDIX 4: WETLAND ASSESSMENT

1. It is my opinion that the status of the lagoon as a 'natural inland wetland' must be demonstrated, before in order to apply the NES-F Regulations. This has not been clarified in the application.

2. The reason for my position is as follows:

   (a) A natural inland wetland is defined in the National Policy Statement for Freshwater Management 2020 (**NPS-FM)**, as:

> **natural inland wetland** means a wetland (as defined in the Act) that is not:
>
> (a) in the coastal marine area; or
>
> (b) a deliberately constructed wetland, other than a wetland constructed to offset impacts on, or to restore, an existing or former natural inland wetland; or
>
> (c) a wetland that has developed in or around a deliberately constructed water body, since the construction of the water body; or
>
> (d) a geothermal wetland; or
>
> (e) a wetland that:
>
> (i) is within an area of pasture used for grazing; and
>
> (ii) has vegetation cover comprising more than 50% exotic pasture species (as identified in the National List of Exotic Pasture Species using the Pasture Exclusion Assessment Methodology (see clause 1.8)); unless
>
> (iii) the wetland is a location of a habitat of a threatened species identified under clause 3.8 of this National Policy Statement, in which case the exclusion in (e) does not apply

   (b) The Resource Management Act 1991 (**RMA**) defines a wetland as:

> **Wetland** includes permanently or intermittently wet areas, shallow water, and land water margins that support a natural ecosystem of plants and animals that are adapted to wet conditions.

   (c) The NPS-FM, Clause 3.23(1),(2) and (3) state:

> (1) Every regional council must identify and map every natural inland wetland in its region that is:
>
> (a) 0.05 hectares or greater in extent; or
>
> (b) of a type that is naturally less than 0.05 hectares in extent (such as an ephemeral wetland) and known to contain threatened species.
>
> (2) However, a regional council need not identify and map natural inland wetlands located in public conservation lands or waters (as that term is defined in the Conservation General Policy 2005 issued under the Conservation Act 1987).
>
> (3) In case of uncertainty or dispute about the existence or extent of a natural inland wetland, a regional council must have regard to the Wetland Delineation Protocols (see clause 1.8).

Is the lagoon identified and mapped by the regional council as a natural inland wetland?

(d) With regard to NPS-FM Clause 3.23(1), Appendix A of the SWLP lists regionally significant wetlands (RSW) and sensitive waterbodies, and they are mapped in Map Series 7. However, the status of the lagoon is unclear:

(i) Appendix A identifies the 'Waituna Lagoon' as a 'sensitive waterbody'.

(ii) Appendix A also identifies the 'Waituna Scientific Reserve[1]' (which would include the lagoon) without expressly specifying if the list is for RSW, but in turn Appendix A refers plan users to Map Series 7, waterbody ID number (3).

(iii) Map Series 7, Map 31 shows the entire area to be a sensitive waterbody (see Appendix 5 of this evidence).

(iv) Online, the GIS layers cannot be viewed separately to determine if the Lagoon is mapped both as RSW and as a sensitive water body.

[1] Being the only mention of 'Waituna Scientific Reserve' in the SLWP.

(v) Environment Southland confirmed their opinion that they consider the Maps "*incorrectly show the Waituna Scientific Reserve as a Sensitive Waterbody. It should instead show the reserve as a RSW (green shading) with Waituna Lagoon also marked as a Sensitive Waterbody (blue shading overlay*)"[2].

(vi) However, in terms of Clause 3.23(1), the Lagoon is not mapped as a natural inland wetland.

(vii) The RPS and SWLP otherwise make inconsistent reference to the Waituna Lagoon, e.g:

- *The Waituna Lagoon is a large shallow water body on the southern coast. The lagoon, together with the associated Awarua Wetland, has been designated as a wetland of international importance under the 1976 Ramsar Convention…* [3]
- *Policy WQUAL.3 - … Several of Southland's wetlands are of international or national significance, for example, the Waituna wetlands and the Te Anau string bogs.*[4]
- *Policy WQUAL.4 – Awarua Wetland. Enhance the water quality of the Awarua Wetland by …*[5]
- *The Awarua Wetlands, comprising of Awarua Bay and Waituna Lagoon, are one of the largest remaining wetland complexes in Southland…*[6].

(viii) I acknowledge the mapped 'Awarua Wetland' is RAMSAR site 102. However, its RAMSAR overview states "*The site consists of a coastal lagoon, peatlands, saltmarsh, gravel beach, ponds, and lakes*"[7].

(ix) I note a 2011 report prepared by the Lagoon Technical Group stated "*In terms of estuary classification it is*

2 Pers comm, email from Environment Southland Strategic Regulatory Advisor, dated 15 July 2024.
3 RPS, Chapter 1, page 10.
4 RPS, Chapter 4, page 38.
5 RPS, Chapter 4, page 39.
6 SWLP, Issues – Biodiversity; and RPS, Policy WQUAL.4.
7 RAMSAR website for Awarua Wetland.

classified as an intermittently closed and open coastal lake or lagoon (ICOLL)"[8]. Other experts have previously concurred[9,10,11].

Is the lagoon administered by the Department of Conservation?

(e) With regard to NPS-FM Clause 3.23(2), the Conservation General Policy 2005 defines 'Public conservation lands and waters' as:

> Lands and water areas administered by the Department of Conservation for whatever purpose, including the natural and historic resources of those areas covered by this General Policy. Reserves administered by other agencies are not included in this definition.

(i) The Department of Conservation website reports that the Waituna Lagoon is Public Conservation Land and a Scientific Reserve, therefore the regional council need not identify and map wetlands in this area, (although it appears they have).

Is there any uncertainty or dispute?

(f) With regard to NPS-FM Clause 3.23(3) – in the case of uncertainty or dispute, the regional council must have regard to the Wetland Delineation Protocols (**WDP**)[12]. The WDP considers three primary indicators to confirm a wetland – hydrology, soil and vegetation.

(g) The applicant has stated that they have not applied the WDP[13].

(h) Having visited the lagoon and opening sites and having observed the lake-like nature of the water body, the gravel substrate near

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8 Interim recommendations to reduce the risk of Waituna Lagoon flipping to an algal-dominated stated, Lagoon Technical Group, May 2011.

9 *Environment Southland Hearing Report: Proposed Southland Water and Land Plan*, Paragraph B.38 and heading.

10 *Statement of evidence of Kathryn Jane McArthur on behalf of the Royal Forest and Bird Protection Society of NZ in the matter of the proposed Southland Regional Water and Land Plan*, 15 February 2019, paragraph 97.

11 Land and Water Aoteoroa website.

12 *Wetland delineation protocols*, Ministry for the Environment, 2022.

13 Pers comm, Lisa Thorne, 2 July 2025.

the opening sites and possible absence of hydric soils, and the paucity of obligate wetland vegetation at the coastal margin of the lagoon, it is my opinion the WDP should be applied to address any doubts.

(i) I note the applicant also describes the opening sites in a similar manner -

Waituna Lagoon is a shallow, coastal lake with an extensive network of wetlands surrounding it[14].

Due to previous openings, there is little comparative vegetation cover[15].

Waituna lagoon is shallow, the water depth is usually less than 2mASL, and it is usually isolated from the sea by a gravel bar[16].

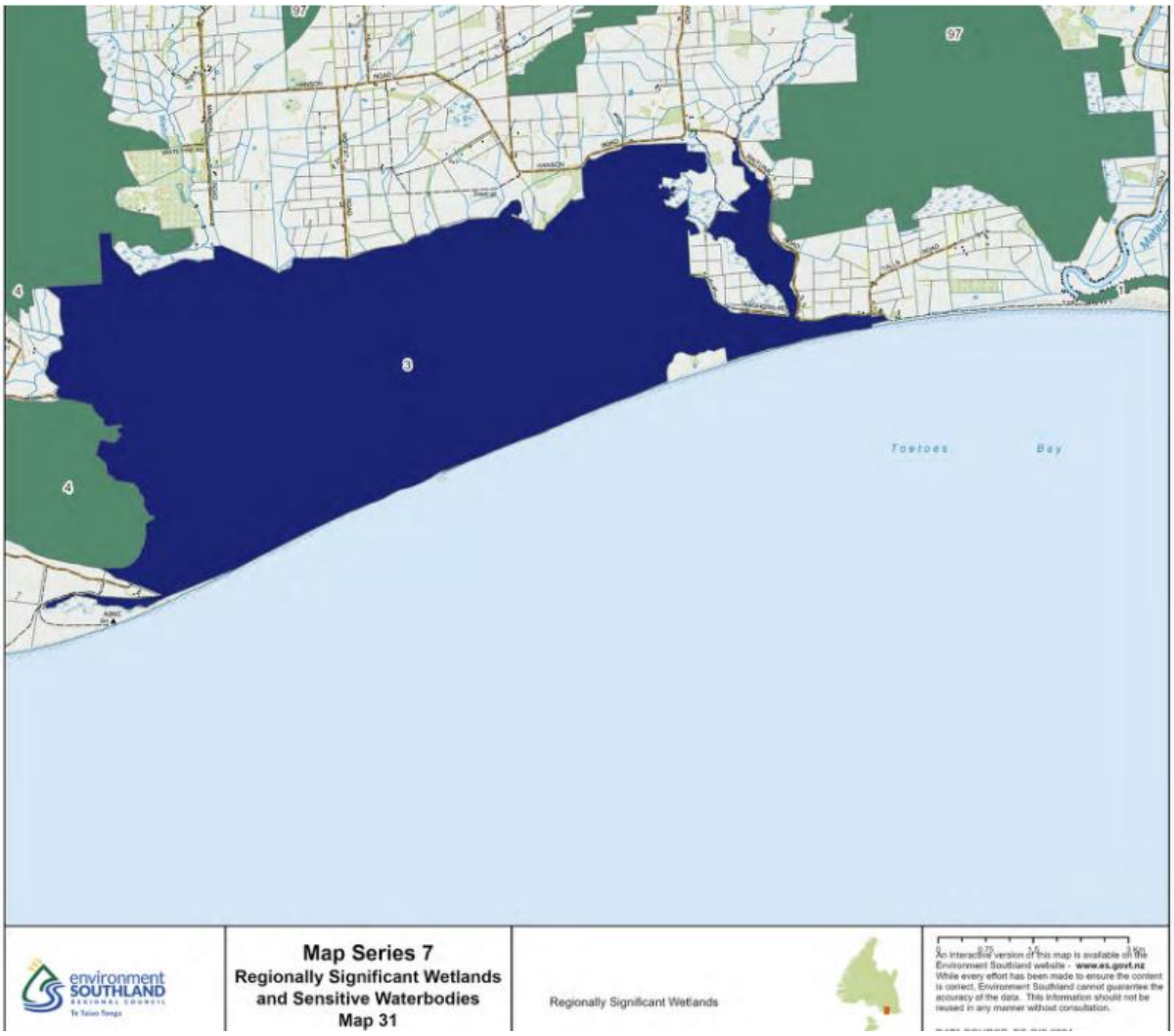
The gravel bar between the lagoon and the sea is highly porous…".

(j) In my opinion, the lagoon may not be classified as a wetland under the WDP, and most importantly, the lagoon at or within 100m of the proposed opening locations. The applicant should have engaged a suitably qualified and person to apply the WDP to avoid any confusion given the status of the lagoon as a wetland under NPS-FM provisions, is in dispute.

(k) It is my layperson's opinion that the 'Awarua Wetlands' / 'Waituna Lagoon Scientific Reserve' is a wetland complex, comprising a lagoon - being an Intermittently Closed and Open Coastal Lake or Lagoon (ICOLL), with wetland along the landward margins. The ICOLL does not qualify as a wetland under the WDP as it does not appear to have hyperic soils and plant communities dominated by obligate wetland plant species, particularly at or within 100m of the proposed opening locations.

14 Application, section 1.1, page 9.
15 Application, section 5.3.2, page 62.
16 Application, section 5.2.2, page 40.

APPENDIX 5: SWLP REGIONALLY SIGNIFICANT WETLANDS AND SENSITIVE WATER BODIES



Appendix A – Regionally Significant Wetlands and Sensitive Water Bodies in Southland

Locations of the wetlands and water bodies listed in this Appendix can be found in Map Series 7: Regionally Significant Wetlands and Sensitive Water Bodies. The numbers listed below correspond to the Map Series 7 waterbody ID numbers.

Awarua Plains - Southland Estuaries including:

(1) Fortrose Harbour (including lower Mataura River)
(2) Seaward Moss
(3) Waituna Scientific Reserve
(4) Wetlands adjoining Awarua Bay
(5) Wetlands adjoining Bluff Harbour
(6) Wetlands adjoining New River Estuary

Sensitive Water Bodies in Southland:

(117) Lake Manapōuri

(54) Lake Murihiku

(116) Lake Te Anau

(39) Lakes of Stewart Island

(6) New River Esturay

(45) The Reservoir

(102) Waiau River from Lake Manapōuri to Mararoa Weir

(3) Waituna Lagoon

Note 1: *For wetlands, this appendix only identifies those which have been formally assessed and found to be of regional significance. There are also rules in this plan that manage activities in relation to all wetlands, not only those identified in this appendix.*