BEFORE THE FRESH WATER HEARINGS PANEL APPOINTED BY THE OTAGO REGIONAL COUNCIL

IN THE MATTER OF of the Resource Management Act 1991

AND

IN THE MATTER OF the Proposed Otago Regional Policy Statement 2021
Fresh Water Planning Instrument Hearing

SUBMITTER Silver Fern Farms Limited, submitter 20

STATEMENT OF EVIDENCE BY JOHN KYLE

27 JUNE 2023

INTRODUCTION AND BACKGROUND

1 My full name is John Clifford Kyle

2 I hold an Honours degree in Regional Planning from Massey University, which I obtained in 1987. I am a founding Director in the consulting practice Mitchell Daysh Limited and am based in the firm's Dunedin office.

3 I have been engaged in the field of resource and environmental management for more than 35 years. My experience includes a wide range of resource management work, in respect of regional and district plans, designations, resource consents, environmental management, and environmental effects assessment. This includes extensive experience with large-scale, and often nationally significant projects involving inputs from a multidisciplinary team. My work regularly takes me all over New Zealand.

4 I have worked in the Otago Regional Council jurisdiction since the 1990s and I am generally familiar with the planning issues that prevail in Otago. I have been involved with resource consenting processes relating to Silver Fern Farms Limited's (**Silver Fern Farms**) meat processing plant at Finegand over the last three years. I have prepared this statement of evidence at the request of Silver Fern Farms.

5 In preparing this evidence I have reviewed the:

a. Submission and further submission on the Fresh Water Planning Instrument lodged by my firm on behalf of Silver Fern Farms;[1]

b. Section 42A report - Proposed Otago Regional Policy Statement Parts considered to be a Freshwater Planning Instrument under section 80A of the Resource Management Act 1991 - 2 June 2023 (**s42A report**); and

c. Further submissions on Silver Fern Farms' submission.[2]

[1] Silver Fern Farms' submission no. FPI020 dated 29 November 2022 and further submission no. FSFPI020 dated 3 February 2023.

[2] Central Otago Winegrowers Association; Otago Fish & Game Council; Fonterra Limited; Horticulture New Zealand; Minister David Parker; OceanaGold (New Zealand) Limited; Queenstown Lakes District Council.

6 I have read, agree to comply with, the Environment Court's Code of Conduct for Expert Witnesses. My qualifications as an expert are set out above and an outline of my recent experience is included as **Appendix A**. I confirm that the issues addressed in this brief of evidence are within my area of expertise. I confirm that I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed.

SCOPE OF EVIDENCE

7 My evidence will:

a. Summarise Silver Fern Farms interest in the proposed Otago Regional Policy Statement (**pORPS**) and identify the key aspects of the relief it sought in submissions;

b. Comment on the recommendations of the s42A report in respect of the matters raised by Silver Fern Farms' submissions; and

c. Set out my conclusions.

OVERVIEW OF SILVER FERN FARMS

8 The Hearings Panel will recall from Silver Fern Farms' planning evidence on the Non-Fresh Water Planning Instrument earlier this year,[3] that Silver Fern Farms' interest in the pORPS relates to meat processing operations at Silver Fern Farms' site at Yorston Road, Finegand (**site**).

9 To recap, the site is one of the busiest meat processing plants in New Zealand. Operations at the site employ 1,200 – 1,300 staff during the peak of the meat processing season.

10 The site's operations include consented discharges of up to 20,000 L/day of wastewater (specifically, industrial waste)[4] via two diffusers to the Koau Branch of the Clutha River.

[3] Particularly in section 2 of the evidence of Steve Tuck on behalf of Silver Fern Farms, dated 23 November 2022.

[4] The Regional Plan Water: for Otago defines *industrial or trade waste* as "Waste from an industrial or trade premises, that is derived from an industrial or trade process".

11 The upgrades completed in 2007 implemented a new three-stage wastewater treatment system as follows:

- Primary treatment upgrades included the installation of:
  - Primary and secondary rotating screens to separate out large solids.
  - A settling tank, where sludge and remaining solids are separated out.
  - Balancing ponds.
- Secondary treatment upgrades included installation of:
  - Feed pipes with poly electrodes.
  - Dissolved air floatation treatment, acid and alkaline.
- Tertiary treatment upgrades included the installation of UV disinfectant reactors.

12 Wastewater system monitoring data recorded since the 2007 upgrades show a high level of compliance with the consented discharge limits.

13 Since October 2020, Silver Fern Farms has been working through a subsequent resource consent application process to renew the site's discharge permits for a 25-year term. Expert technical reporting in support of the reconsent application described the existing wastewater treatment system as "…typical of the type of configuration selected as the best practicable option to treat meat processing wastewater to a level of discharge quality that meets similar consent limits".[5]

14 Aside from its discharge permits, Silver Fern Farms also holds resource consents to take water from the Koau Branch of the Clutha River. As such, the site's operations depend on interactions with fresh water.

[5] "Finegand Plant – Current wastewater management and applicability for continued discharge to surface water". Pattle Delamore Partners Limited, 2020.

15 Therefore, Silver Fern Farms reviewed and submitted on the Fresh Water Planning Instrument with a view to ensuring it includes appropriate policy recognition of, and provision for, the site's interactions with fresh water.

16 The key relief sought in Silver Fern Farms' submissions was:

a. Clear policy recognition of the benefits (including economic benefits) of water use by the community.

b. Refinement of unqualified policy directions about the management of fresh water values. Silver Fern Farms was concerned about the implications of absolute requirements like (for example) for no reduction of, or the avoidance of all adverse effects on, fresh water resource(s) or value(s).

c. As an important corollary of the broad theme above, provision for the management of industrial waste discharges, rather than a blunt prohibition on all discharges of "wastewater" to water. Silver Fern Farms was concerned that the notified provisions disregarded contextual factors influencing operational decisions around discharges to water, like:

- The feasibility and comparative environmental performance of other wastewater disposal methods.
- The degree to which the effects of discharges on the receiving environment could be managed.
- Investments into the consenting and establishment of high-performing private wastewater management systems.

d. Alignment between the pORPS and National Policy Statement for Freshwater Management 2020 ('NPSFM') with regard to the effects management hierarchy that will apply to activities with adverse effects on natural wetlands.

17 I discuss each of these three key themes in the following sub-sections.

BENEFITS OF WATER USE

18 The s42A report notes at [1407] that the notified pORPS only provided basic, high-level policy direction about water use at LF-FW-P7(6). The direction was that "fresh water is allocated within environmental limits and used efficiently".

19 The s42A report concurs with submitters that the pORPS should give more direction on the allocation and efficiency of water use, the benefits to be derived from using water and provision for water storage.

20 To address this matter, the s42A report recommends amendments to policy *LF-FW-P7 – Fresh water*, and the addition of a new policy *LF-FW-P7A - Water allocation and use* as follows:

> ***LF–FW–P7 – Fresh water***
>
> *Environmental outcomes, attribute states (including target attribute states), environmental flows and levels, and limits ensure that:*
>
> *(1) the health and well-being of water bodies is maintained or, if degraded, improved,*
>
> *(2) the habitats of indigenous freshwater species ~~associated with water bodies~~ are protected and sustained, including by providing for fish passage,*
>
> *(2A) the habitats of trout and salmon are protected insofar as this is consistent with (2),*
>
> *(3) specified rivers and lakes are suitable for primary contact within the following timeframes:*
>
> *(a) by 2030, 90% of rivers and 98% of lakes, and*
>
> *(b) by 2040, 95% of rivers and 100% of lakes, and*
>
> *(4) resources harvested from water bodies including mahika kai and drinking water are safe for human consumption,*
>
> *(5) existing over-allocation is phased out and future over-allocation is avoided~~, and~~*
>
> *~~(6) fresh water is allocated within environmental limits and used efficiently~~.*

LF-FW-P7A – Water allocation and use

Within limits and in accordance with any relevant environmental flows and levels, the benefits of using fresh water are recognised and over-allocation is either phased out or avoided by:

(1) allocating fresh water efficiently to support the social, economic, and cultural well-being of people and communities to the extent possible within limits, including for:

(a) community drinking water supplies,

(b) renewable electricity generation, and

(c) land-based primary production,

(2) ensuring that no more fresh water is abstracted than is necessary for its intended use,

(3) ensuring that the efficiency of freshwater abstraction, storage, and conveyancing infrastructure is improved, including by providing for off-stream storage capacity, and

(4) providing for spatial and temporal sharing of allocated fresh water between uses and users where feasible.

21 I generally agree with the approach recommended by the s42A report in this regard. I consider the level of direction provided to be appropriate, with the detail of allocation methods and limits to be determined through a future regional plan preparation process. However, I note that the language within LF-PW-P7(2) is at odds with section 6 of the Resource Management Act 1991 (**the Act**). In my opinion this should be rectified via the inclusion of the word "significant" ahead of "habitats".

22 In my view it is appropriate to recognise the community's use of fresh water in a policy including recognition of social, economic and cultural wellbeing, and to express limitations on water use in qualified and non-exclusive terms as proposed in LF-FW-P7A. This approach:

- Supports the outcomes described at objective *LF-FW-O1A – Region-wide objective for fresh water* sub-clauses (6) and(7);[6] and

- Appropriately recalls the enabling premise of sustainable management described in section 5 of the Act.

23 I consider that it is appropriate to expressly refer in LF-FW-P7A(3) to providing for off-stream water storage capacity. I agree with analysis at paragraph [1407] of the s42A report which sets out that water storage is a method to address over-allocation and improve the reliability of water supply.

24 As a result of the focus in LF-FW-P7A on water allocation and use, sub-clause (6) of LF-FW-P7 becomes redundant and I concur with the s42A report recommendation to delete it. this. However, I note that a further duplication regarding over-allocation (shown below with the s42A mark-up included) should also be addressed.

> ***LF–FW–P7 – Fresh water***
>
> *Environmental outcomes, attribute states (including target attribute states), environmental flows and levels, and limits ensure that:*
>
> [...]
>
> *(5) existing over-allocation is phased out and future over-allocation is avoided.*
>
> ***LF-FW-P7A – Water allocation and use***
>
> *Within limits and in accordance with any relevant environmental flows and levels, the benefits of using fresh water are recognised and over-allocation is either phased out or avoided by:*
>
> *(1) allocating fresh water efficiently to support the social, economic, and cultural well-being of people and communities to the extent possible within limits* [...]

[6] Which are: *LF-FW-O1A – Region-wide objective for fresh water*
In all FMUs and rohe in Otago and within the timeframes specified in the freshwater visions in LF-VM-O2 to LF-VM-O6: [...]

(6) the health of the water supports the health of people and their connections with water bodies;

(7) innovative and sustainable land and water management practices provide for the health and well-being of water bodies and freshwater ecosystems and improve resilience to the effects of climate change,

25 LF-FW-P7A requires that "*over-allocation is either phased out or avoided…*" when setting limits on resource use and allocating water.

26 This new provision means the direction at LF-FW-P7(5) about "*existing over-allocation is phased out and future over-allocation is avoided*" becomes unnecessary and I recommend it be deleted.

27 A further minor amendment I recommend is to delete the words "within limits" from LF-FW-P7A(1). The first words of that policy's preamble are "Within limits and in accordance with…". Therefore, the entire policy is couched in the context of limits, and repetition of the words in sub-clause (1) of the policy is unnecessary in my view.

28 These recommended amendments are shown in the table attached as **Appendix B**. Otherwise, I am comfortable with the s42A recommendations on this matter.

UNQUALIFIED POLICY DIRECTIONS

29 Silver Fern Farms' submission sought amendments to unqualified language in various provisions[7]. For example, all-encompassing requirements that there be "no reduction" in the extent or characteristics/values of a resource.

30 In my view, the use of unqualified language in a policy framework requires careful consideration. Such language at a policy level can carry through to ensuing plan-making processes in the form of rules that effectively result in a prohibitive regime even though the activity can otherwise have considerable merit, or, in the case of applications for non-complying activities subject to the tests of s104D of the Act, as a bar to the passage of a consent application through either of the gateways inherent in that section.

31 More specifically, unqualified policy drafting can:

[7] Including submission points on LF-WAI-O1; LF-FW-O8(2); LF–FW–O9; LF–FW–P7; LF–FW–P9(1)(b)(iv); LF–FW–P10 (FPI020.017), LF–FW–M7 (FPI020.021), LF–FW–AER8 (FPI020.024) and LF–FW–AER11 (FPI020.027).

- Establish a policy regime weighing heavily against the consenting of new activities that otherwise promote economic, social and cultural well-being consistent with the purpose of the Act.

- Limit the potential for a proposal to result in net environmental gains through mitigation, offsetting or compensation measures.

- Constrain options to manage environmental effects, which in the worst case, could see the most environmentally sound management approach precluded (the notified PORPS requirements relating to wastewater discharges to water being an example).

32 Locationally or operationally constrained activities, including sites like Finegand with substantial "sunk" investment in on site infrastructure, often have limited ability to reconfigure. These activities can be particularly vulnerable to curtailment by unqualified policies that disregard historic and ongoing investments into environmental management and environmental compliance.

33 I have reviewed the s42A recommendations on the relief sought by Silver Fern Farms with respect to the unqualified language present in the notified drafting of the following provisions:

- *LF-WAI-O1 – Te Mana o te Wai*: with respect to the requirement that "The mauri of Otago's water bodies and their health and well-being is protected, and restored where it is degraded *[…]*".

- *LF-FW-O8– Fresh water*: with respect to the requirement that "In Otago's water bodies and their catchments: *[…]* (2) water flow is continuous throughout the whole system".

- *LF–FW–P7 – Fresh water*: in terms of the requirement at (2) that all habitats of indigenous species be protected and sustained.

- *LF–FW–P10– Restoring natural wetlands*: with respect to the requirement for wetland values to be improved "where possible".

- *LF–LS–P21 – Land use and fresh water*: with respect to the requirement to "reduce" direct and indirect discharges to water.
- *LF–FW–M7 – District plans*: in terms of the direction to "to avoid the adverse effects of activities on the significant and outstanding values of outstanding water bodies".
- LF–FW–AER8: in terms of the requirement for "no reduction in water quality" where water is not already degraded.
- LF–FW–AER11: with regard to the requirement for "no reduction in the extent or quality of Otago's natural wetlands".

34 The relief sought by Silver Fern Farms is largely provided by the s42A report recommendations, by amendments to, or deletion of, the provisions. In the table attached as **Appendix B** I have noted the parts of the s42A report analysing Silver Fern Farms' submissions on the above provisions and record my acceptance of the s42A report recommendations on the relief sought, subject to my recommendations about LF-FW-P7(2) and (5), set out in paragraphs [21] to [26] above.

35 As notified, objective *LF–FW–O9 – Natural wetlands* contained requirements at (2) and (3) for "no decrease" and "no reduction" in wetland extent and values. While I generally agree with the refinements recommended by the s42A report, there appears to be a minor area of conflict in sub-clauses (2) and (3) of that objective, with respect to use of the term 'extent'.

LF-FW-O9 – Natural wetlands

36 The text of LF-FW-O9 as recommended by the s42A report is as follows:

> ***LF–FW–O9 – Natural wetlands***
>
> *Otago's natural wetlands are protected or restored so that:*
>
> *(1) mahika kai and other mana whenua values are sustained and enhanced now and for future generations,*
>
> *(2) there is no <u>net</u> decrease<u>, and preferably an increase,</u> in the <u>extent</u> ~~range~~ and diversity of indigenous ecosystem types and habitats in natural wetlands,*

(3) there is no reduction and, where degraded, there is an improvement in ~~their~~ wetland ecosystem health, hydrological functioning, amenity values, extent or water quality~~, and if degraded they are improved,~~ and

(4) their flood attenuation and water storage capacity is maintained or improved.

37 In sub-clauses (2) and (3) the respective directions are for:

- In (2), "no net decrease…in the **extent** and diversity of indigenous ecosystem types and habitats in natural wetlands"
- In (3), "no reduction…in wetland ecosystem health, hydrological functioning, amenity values, **extent** or water quality".

38 Given the difference between the directions for either "no net decrease" or "no reduction", the references to wetland "extent" appear to be in conflict.

39 I prefer the policy direction for "no net decrease and preferably an increase" provided in sub-clause (2). That approach contemplates situations where any loss in wetland extent must be mitigated or offset to achieve at least a neutral outcome, if not a net increase. The latter can be best achieved by expressly referring to a "net" increase. I do not support an unqualified "no reduction" approach towards wetland extent as expressed in sub-clause (3), as this is more likely to cause the issues, I described in paragraphs 33 – 35.

40 I recommend amended wording to clarify in (2) a direction that "no net decrease and preferably a net increase" applies to both the overall extent of natural wetlands and to their constituent ecosystems. Consequently "extent" can be deleted from (3), as follows:

LF–FW–O9 – Natural wetlands

Otago's natural wetlands are protected or restored so that:

(1) mahika kai and other mana whenua values are sustained and enhanced now and for future generations,

(2) there is no net decrease, and preferably a~~n~~ net increase, in the extent of natural wetlands and in the extent and diversity of indigenous ecosystem types and habitats in natural wetlands,

(3) *there is no reduction and, where degraded, there is an improvement in wetland ecosystem health, hydrological functioning, amenity values, ~~extent~~ or water quality, and*

(4) *their flood attenuation and water storage capacity is maintained or improved.*

Proposed objective LF-FW-O1A – Region-wide objective for fresh water

41 With a view to the issue of unqualified policy directions, I have reviewed the new fresh water objective that is recommended in the s42A report.

42 I am comfortable that the outcomes specified in the new objective are stated in appropriately measured terms. As would be expected, for Silver Fern Farms, the outcome sought in respect of wastewater discharges to water is particularly important under LF-FW-O1A(8), which is:

> ***LF-FW-O1A – Region-wide objective for fresh water***
>
> *In all FMUs and rohe in Otago and within the timeframes specified in the freshwater visions in LF-VM-O2 to LF-VM-O6:*
>
> […]
>
> *(8) direct discharges of wastewater to water bodies are phased out to the greatest extent practicable.*

43 The analysis in [1548] of the s42A report states that the direction to phase out discharges to the greatest extent practicable "*…recognises there will be some discharges which cannot be phased out – including some existing discharges which, perhaps for feasibility reasons, cannot be replaced by a discharge to land as well as some new discharges where the adverse effect of a discharge to land is demonstrably higher than a discharge to water*". I agree with this view and do not recommend any changes to this provision, but reiterate the importance of retaining the last five words of the objective.

44 The direction at LF-FW-O1A(8) is implemented through policies LF-FW-P15 and LF-FW-P16, which I discuss below.

POLICY FRAMEWORK FOR DISCHARGES

45 Silver Fern Farms submission sought relief[8] on the policy framework for wastewater discharges to water as follows:

- *LF-VM-O2 - Clutha Mata-au FMU vision*: with respect to the requirement for "no direct discharges of wastewater to water bodies" at sub-clause (7)(c)(iv).
- *LF-FW-P15 Stormwater and wastewater discharges:* with respect to:
  - at sub-clause (1), implementation of the unqualified LF-VM-O2(7)(c)(iv) direction above;
  - at sub-clauses (2)(a) and (b) with respect to the requirement that all wastewater discharges to be discharged into a reticulated system, where one is available – regardless of any existing and/or alternative discharge methods;
  - at sub-clause (2)(e) with respect to the requirement that stormwater and wastewater discharges meet any applicable water quality standards set for FMUs and/or rohe – without regard to any mixing of the discharges.

46 These matters are discussed in the s42A report at paragraphs [938] to [945] with respect to *LF-VM-O2 - Clutha Mata-au FMU vision* and paragraphs [1509] to [1551] with respect to *LF-FW-P15 Stormwater and wastewater discharges*.

47 I agree with the s42A recommendation to delete LF-VM-O2(7)(c)(iv) and provide direction for wastewater discharges in a new region-wide objective for fresh water at LF-FW-O1A(8) as:

> ***LF-FW-O1A – Region-wide objective for fresh water***
>
> *In all FMUs and rohe in Otago and within the timeframes specified in the freshwater visions in LF-VM-O2 to LF-VM-O6: [...]*
>
> *(8) direct discharges of wastewater to water bodies are phased out to the greatest extent practicable.*

[8] Submission points FPI020.012, FPI020.018 and FSFPI020.008.

48 In my opinion, the recommended amendment is a practical balance that qualifies the unduly inflexible "no direct discharges" requirement while retaining a clear policy direction for wastewater discharges. It also represents an improvement insofar as it gives direction about wastewater discharges across all FMUs and rohe.

49 In terms of Silver Fern Farms' concerns[9] about the notified text of *LF-FW-P15 Stormwater and wastewater discharges,* the s42A report recommends that the policy be amended to focus on stormwater discharges only and a new policy *LF-FW-P16 – Discharges containing animal effluent, sewage, and industrial and trade waste* be introduced to give direction for other forms of wastewater discharge, as below.

> ***LF-FW-P16 – Discharges containing animal effluent, sewage, and industrial and trade waste***
>
> *Minimise the adverse effects of direct and indirect discharges containing animal effluent, sewage, and industrial and trade waste to fresh water by:*
>
> *(1) phasing out existing discharges containing sewage or industrial and trade waste directly to water to the greatest extent possible,*
>
> *(2) requiring:*
>
> *(a) new discharges containing sewage or industrial and trade waste to be to land, unless adverse effects associated with a discharge to land are demonstrably greater than a discharge to fresh water,*
>
> *(b) discharges containing animal effluent to be to land,*
>
> *(c) that all discharges containing sewage or industrial and trade waste are discharged into a reticulated wastewater system, where one is made available by its owner, unless alternative treatment and disposal methods will result in improved outcomes for fresh water,*
>
> *(d) implementation of methods to progressively reduce the frequency and volume of wet weather overflows and minimise the likelihood of dry weather overflows occurring into reticulated wastewater systems,*

[9] Submission points FPI020.018 and FSFPI020.008.

(e) on-site wastewater systems and animal effluent systems to be designed and operated in accordance with best practice standards,

(f) that any discharges do not prevent water bodies from meeting any applicable water quality standards set for FMUs and/or rohe,

(3) to the greatest extent practicable, requiring the reticulation of wastewater in urban areas, and

(4) promoting source control as a method for reducing contaminants in discharges.

50 I agree that the approach recommended in the s42A report improves on the notified provisions by providing separate policy directions for the different types of wastewater discharges (stormwater at LF-FW-P15 and other wastewater at LF-FW-P16).

51 The new policy LF-FW-P16 requires the adverse effects of wastewater discharges to water to be minimised and, at (1), that discharges of sewage or industrial and trade waste be phased out "to the greatest extent possible". I consider that this more qualified policy direction for those types of wastewater discharges is preferable to a blunt policy dissuasion of these discharges, for reasons of practicability, discussed at [944] and [1548] of the s42A report.

52 I consider that a minor amendment is appropriate with respect to the use of the phrase "to the greatest extent possible" in sub-clause (1) of LF-FW-P16. Paragraph [1548] of the s42A report indicates that the policy is intended to follow the direction set by new objective LF-FW-O1A. That direction is for wastewater discharges to water to be phased out to the greatest extent "practicable". The s42A author explains in [1548]:

> *"The direction in my new recommended LF-FW-O1A is for discharges of wastewater to water bodies to be phased out to the **greatest extent practicable**. I consider that this recognises there will be some discharges which cannot be phased out – including some existing discharges which, perhaps for feasibility reasons, cannot be replaced by a discharge to land as well as some new discharges where the adverse effect of a discharge to land is demonstrably higher than a discharge to water. I recommend including*

clause (1) in LF-FW-P16 for existing discharges that ***reflects the direction in LF-FW-O1A****…"* (my emphasis in bold text).

53 Given its inconsistency with the drafting of similar provisions of the Fresh Water Planning Instrument, it appears that the phrase "to the greatest extent possible" in LF-FW-P16(1) may be a minor drafting error. I recommend that it be amended to "to the greatest extent practicable". This would accurately reflect the analysis provided at [1548] of the s42A report. This recommendation is recorded in the table at **Appendix B**.

54 I agree with other analysis at paragraph [1548] of the s42A report with respect to LF-FW-P16(2). This discusses the recommendation that LF-FW-P16 be drafted to allow for consideration of new wastewater discharges to water if it is the most environmentally sound management measure. As such, I support the s42A report recommendation on the drafting of sub-clause (2)(a) of LF-FW-P16 for new discharges of (non-animal effluent) wastewater discharges to water.

55 The s42A report recommends that LF-FW-P15(2)(b) be amended, and LF-FW-P16(2)(c) be drafted in a way that qualifies the obligation to direct discharges to a reticulated system. I agree with this change, because the notified drafting would have rendered redundant private investments into consenting and developing onsite wastewater management systems, like the system at the Finegand site.

56 Silver Fern Farms sought clarification[10] of the requirement at LF-FW-P15(2)(e) that all wastewater discharges to water must meet any applicable water quality standards set for the FMU/rohe. As notified, the policy would apply FMU-wide water quality standards to individual discharges and did not appear to allow for reasonable mixing.

57 I am comfortable that the matter is addressed by the s42A analysis at [1528] and recommendation to shift the emphasis in the drafting from the content of the discharge to the effect on the receiving water body. This is provided at

[10] Submission points FPI020.018 and FSFPI020.008.

LF-FW-P15(2)(e) (for stormwater) and at LF-FW-P16(2)(f) (for industrial and trade waste) as follows:

> ***LF-FW-P15 - Stormwater ~~and wastewater~~ discharges***
>
> *Minimise the adverse effects of direct and indirect discharges of stormwater ~~and wastewater~~ to fresh water by:* [...]
>
> *(2) requiring* [...]
>
> *(e) that any stormwater ~~and wastewater~~ discharges do not prevent water bodies from ~~to~~ meeting any applicable water quality standards set for FMUs and/or rohe* [...]
>
> ***LF-FW-P16 – Discharges containing animal effluent, sewage, and industrial and trade waste***
>
> *Minimise the adverse effects of direct and indirect discharges containing animal effluent, sewage, and industrial and trade waste to fresh water by:* [...]
>
> *(2) requiring* [...]
>
> *(f) that any discharges do not prevent water bodies from meeting any applicable water quality standards set for FMUs and/or rohe,* [...]

58 The s42A recommends in LF-FW-P16(e) that on-site wastewater systems be designed and operated in accordance with "best practice standards", as below.

> ***LF-FW-P16 – Discharges containing animal effluent, sewage, and industrial and trade waste***
>
> *Minimise the adverse effects of direct and indirect discharges containing animal effluent, sewage, and industrial and trade waste to fresh water by:* [...]
>
> *(2) requiring* [...]
>
> *(e) on-site wastewater systems and animal effluent systems to be designed and operated in accordance with best practice standards,*

59 The Act expressly requires that applications for discharge permits be considered in terms of the "best practicable option" and it provides for consent conditions to be applied in this respect (s108(2)(e)). In my view the application of a "best practice standards" policy threshold to discharges

inappropriately departs from those "best practicable option"[11] considerations in the Act.

60 The Act provides for a structured assessment of the best practicable option in relation to discharges. This approach would be precluded by the "best practice standards" approach recommended in the s42A report[12].

61 For that reason, I recommend that LF-FW-P16(e) be amended to refer to "the best practicable option", not "best practice standards".

EFFECTS MANAGEMENT HIERARCHY FOR INDIGENOUS BIODIVERSITY IN NATURAL WETLANDS

62 The s42A report recommends that policy LF-FW-P9(2) should apply the Council's *'effects management hierarchy (in relation to indigenous biodiversity)'* to activities that adversely affect indigenous biodiversity in a natural wetland, as below:

> ***LF-FW-P9 – Protecting natural wetlands***
>
> *Protect natural wetlands by implementing clause 3.22(1) to (3) of the NPSFM, except that:*
>
> *(1) in the coastal environment, natural wetlands must also be managed in accordance with the NZCPS, and*
>
> *(2) when managing the adverse effects of an activity on indigenous biodiversity, the effects management hierarchy (in relation to indigenous biodiversity) applies instead of the effects management hierarchy (in relation to natural wetlands and rivers).*

63 In applying the Council's bespoke '*effects management hierarchy (in relation to indigenous biodiversity)',* LF-FW-P9(2) appears to conflict with NPSFM

[11] **best practicable option**, in relation to a discharge of a contaminant or an emission of noise, means the best method for preventing or minimising the adverse effects on the environment having regard, among other things, to—

(a) the nature of the discharge or emission and the sensitivity of the receiving environment to adverse effects; and

(b) the financial implications, and the effects on the environment, of that option when compared with other options; and

(c) the current state of technical knowledge and the likelihood that the option can be successfully applied.

[12] At paragraph [1549].

provisions regarding how adverse effects on natural wetlands are to be assessed and managed.

64 NPSFM cl. 3.21 (Definitions relating to wetlands and rivers) defines the effects management hierarchy in relation to natural inland wetlands and rivers. It does not contemplate alternative effects management hierarchies. Subsequently, NPSFM cl. 3.22 (Natural inland wetlands) implements the effects management hierarchy. It does so via requirements for regional plans to include policies that apply the effects management hierarchy in consenting processes.

65 Specifically, NPSFM cl. 3.22 requires regional plans to include policies that:

- Limit the consenting of activities with adverse effects on natural wetlands to only the narrow range of proposals described in cl. 3.22(1).
- Ensure that resource consents are not granted for applications that do not apply the effects management hierarchy **defined in NPSFM cl. 3.21**.

66 In my view, the NPSFM does not allow for consent authorities to apply alternatives to the effects management hierarchy in cl. 3.21 when preparing regional plans and when assessing and managing activities with adverse effects on natural wetlands.

67 Nor does the NPSFM contemplate consent authorities distinguishing discrete components of natural wetlands (such as indigenous biodiversity) for assessment via a separate effects management tool. This is indicated by (for example) cl. 3.22(3)(a)(i), which requires that regional plans are amended to require consent authorities to be satisfied that:

> *the applicant has demonstrated how each step of **the effects management hierarchy** will be applied to any loss of extent or values of the wetland (including cumulative effects and loss of potential value), particularly **(without limitation)** in relation to the values of: ecosystem health, **indigenous biodiversity**, hydrological functioning, Māori freshwater values* [...] (my emphasis shown in bold).

68 Given the above, I consider that the requirement in LF-FW-P9(2) for applicants to apply the Council's '*effects management hierarchy (in relation to indigenous biodiversity)*' to adverse effects on indigenous biodiversity in wetlands, instead of the effects management hierarchy defined in NPSFM cl.

3.21 is at odds with NPSFM cl. 3.22. In my reading of the NPSFM, cl. 3.22 applies the effects management hierarchy defined in cl. 3.21 and does not anticipate alternatives to that tool.

69 As such, it appears that a future regional plan would risk inconsistency with s66(1)(ea) of the Act[13] if it were to follow LF-FW-P9(2) in requiring assessments of adverse effects on indigenous biodiversity in natural wetlands to apply the pORPS '*effects management hierarchy (in relation to indigenous biodiversity)*' instead of the NPSFM cl. 3.21 effects management hierarchy.

70 Consequently, I consider that LF-FW-P9(2) should be deleted, as shown in the table at **Appendix B**.

CONCLUSION

71 The notified text of the Fresh Water Planning Instrument lacked policy recognition of the benefits of water use to support economic, social and cultural well-being. It also contained a number of unqualified policy directions that would potentially be problematic at the level of plan-making and consent decision-making.

72 In the main, I consider that the amendments recommended in the s42A report satisfactorily respond to the relief sought by Silver Fern Farms.

73 I have identified a few provisions where I consider further minor amendments are warranted to clarify duplications or inconsistencies in the text.

74 My recommendations in respect of the provisions are recorded in the table attached as **Appendix B** to this statement of evidence.

John Kyle

27 June 2023

[13] (1) A regional council must prepare and change any regional plan in accordance with- (ea) a national policy statement, a New Zealand coastal policy statement, and a national planning standard.

APPENDIX A

Summary of Recent Experience of John Kyle

- Wellington International Airport Limited – notice of requirement to designate airport site and Miramar Golf Course site – Wellington City.
- Wellington International Airport Limited – Wellington City District Plan review – managing airport noise effects – Wellington.
- Wellington International Airport – notice of requirement to designate former Miramar School site for airport purposes – Wellington City.
- Fortescue Future Industries – Green Hydrogen Plant – Environmental investigations – Southland.
- Ministry of Business, Innovation and Employment – Environmental evaluation panel – Lake Onslow Pumped Hydro Scheme – Central Otago.
- Silver Fern Farms – wastewater discharge consent Finegand Meat Processing Plant – Clutha District.
- Silver Fern Farms – stormwater management and consenting – Hawera Plant – Hawera.
- Silver Fern Farms – coastal defences work – Pareora Meat Processing Plant – Timaru.
- OceanaGold (New Zealand Limited) – Waihi North gold mine project - Hauraki District.
- Federation Mining – Snowy River Gold mine consenting – Buller District.
- OceanaGold (New Zealand Limited) – Deep Dell mine expansion – Macraes Mine – Waitaki District.
- Queenstown Airport Corporation – Proposed plan change to manage the effects of aircraft noise – Queenstown Lakes District.
- Alliance Group Limited – renewal of all discharge and land use consents Mataura Meat Processing Works, Mataura - Southland Region.
- Simcox Construction (then Isaac Construction) – Quarry operation consent renewal, Marlborough District.
- Fulton Hogan Limited – Canterbury Regional Quarry Project – Templeton – Selwyn District.
- Pernod Ricard NZ Limited – District Plan review – Marlborough Environment Plan submissions – Marlborough District.
- Alliance Group Limited – renewal of all discharge and land use consents Lorneville Meat Processing Works, Lorneville - Southland Region.
- Alliance Group Limited – Air Discharge Consents – Pukeuri Meat Processing Works, Pukeuri - Otago Region.
- Queenstown Lakes District Council – preparation of a Plan Change to expand Queenstown town centre, including to accommodate a convention centre.

- Wellington International Airport Limited – strategic and resource management advice with respect to a proposed runway extension – Wellington City.
- OceanaGold (New Zealand) Limited – Project Martha Gold Mine Expansion, Waihi – Hauraki District.
- Ryman Healthcare – resource consent applications for new retirement villages – New Zealand wide role.
- Environmental Protection Authority – advisor to the Minister appointed Board of Inquiry regarding a Plan Change by Tainui Group Holdings and Chedworth Properties for the Ruakura Inland Port Development, Hamilton.
- Environmental Protection Authority – advisor to the Minister appointed Board of Inquiry regarding a Notice of Requirement and resource consent applications by the New Zealand Transport Agency with respect to the Expressway between Peka Peka and North Otaki on the Kapiti Coast.
- Environmental Protection Authority – advisor to the Minister appointed Board of Inquiry regarding a Notice of Requirement and resource consent applications by the New Zealand Transport Agency with respect to the Expressway between MacKays Crossing and Peka Peka on the Kapiti Coast.
- Environmental Protection Authority – advisor to the Minister appointed Board of Inquiry regarding resource consent applications and designations by the New Zealand Transport Agency with respect to the proposed Transmission Gully Project – Wellington Region.
- Queenstown Lakes District Council – member of the review team commissioned to undertake a review of Council consenting and resource management policy operations.
- Environmental Protection Authority – advisor to the Minister appointed Board of Inquiry regarding a plan change application to the Wellington Regional Water plan to assist with the proposed Transmission Gully Project – Wellington Region.
- Queenstown Airport Corporation – lead consultant - Notice of Requirement for land adjacent to QAC in order provide for the future expansion of airport operations, Queenstown Lakes District.
- Genesis Power Limited – due diligence Slopedown Wind Farm, Southland District and Southland Region.
- TrustPower Limited – proposed Kaiwera Downs Wind Farm, Gore District and Southland Region.
- TrustPower Limited – proposed alteration to the Rakaia Water Conservation Order – Lake Coleridge Hydro Electric Power Scheme – Canterbury Region.
- Meridian Energy Limited – Proposed Mokihinui Hydro Electric Power Scheme, damming, water and land use related consents, Buller District and West Coast Region.
- TrustPower Limited – Wairau Hydro Electric Power Scheme, water and land use related consents, Marlborough District.
- Southern Health – Plan Change Invercargill Hospital Development - Invercargill City.
- Sanford Limited, various marine farm proposals Marlborough Sounds, Marlborough District.

- Port Marlborough Limited – Plan Change proposal to alter the marina zone within the Marlborough Sounds Resource Management Plan to provide for consolidation of marina development in Waikawa Bay, Marlborough District.
- Port Marlborough Limited – Resource consent application for occupation of coastal space – Shakespeare Bay port facilities – Marlborough District.
- Meridian Energy Limited – proposed Wind Farm, Lammermoor Range, Central Otago District and Otago Region.
- Queenstown Airport Corporation – Runway End Safety Area, designation and construction related consents, Queenstown Lakes District and Otago Region.
- Riverstone Holdings Limited – Proposed Monorail Link – Lake Wakatipu to Fiordland, Department of Conservation Concession Application – Southland Conservancy.
- Otago Regional Council – Consents required for controlling the Shotover River to mitigate flood risk – Queenstown Lakes District and Otago Region.
- Queenstown Airport Corporation – aircraft noise controls and flight fan controls – Plan Change and Designations, Queenstown Lakes District.
- Todd Property Pegasus Town Limited – Pegasus Town, North Canterbury – Waimakariri District, Canterbury Region.
- Willowridge Developments – 3 Parks Plan Change to create new commercial, large format retail, service, tourist and residential land use zones, Wanaka, Queenstown Lakes District.
- Gibbston Valley Station – Land use and regional consents, Viticulture and Golf Resort, Gibbston – Queenstown Lakes District and Otago Region.
- Marlborough District Council – Business Park Plan Change, Blenheim - Marlborough District.
- Ravensdown Fertiliser Limited – Coastal and Air Discharge Consent Renewal, Dunedin – Otago Region.
- Irmo Properties Limited – Resource consent application for retail complex, Green Island – Dunedin City.
- Infinity Investment Group and JIT Investments – Hillend Station Farm Park development, Wanaka – Queenstown Lakes District.
- Infinity Investment Group – Peninsula Bay Plan Change, Wanaka – Queenstown Lakes District.
- Genesis Power Limited – Tongariro Power Development, Water Related Consents, Central North Island – Environment Waikato and Horizons MW.
- Genesis Power Limited – Waikato District Plan review and provision for the Huntly Power Station, Waikato District.
- Department of Corrections –New Corrections Facility, Milton - Clutha District and Otago Region.
- Department of Child Youth and Family – Youth Justice Facility, Rolleston – Selwyn District and Canterbury region.

- Kuku Mara Partnerships – Large Scale Marine Farms, Marlborough Sounds – Marlborough District.
- Marine Farming Industry – Plan Appeals, Tasman Aquaculture Inquiry, Tasman and Golden Bays – Tasman District.

Appendix B

Submission ID	Provision	Silver Fern Farms' position	Silver Fern Farms' reasons	Relief sought by Silver Ferns Farms	S.42A-recommended text	J Kyle recommendation and reasons
FPI020.001	**Drinking water** has the same meaning as in Standard 14 of the National Planning Standards 2019 (as set out in the box below) *means water intended to be used for human consumption; and includes water intended to be used for food preparation, utensil washing, and oral or other personal hygiene.*	Support.	It is appropriate and efficient for the definition to align with the definition of this term in the National Planning Standards 2019.	Retain this provision as notified.	Retain the provision as notified.	No further amendments required. Accept the reasons stated in the S.42A report.
FPI020.003	**National Objectives Framework** has the same meaning as in clause 1.4 of the National Policy Statement for Freshwater Management 2020 (as set out in the box below) *means the framework for managing freshwater as described in subpart 2 of Part 3.*	Support.	It is appropriate and efficient for the definition to align with the definition of this term in the National Policy Statement for Freshwater Management 2020.	Retain this provision as notified.	Retain the provision as notified.	No further amendments required. Accept the reasons stated in the S.42A report.
FPI020.003	**Natural hazard works** has the same meaning as in regulation 51(1) of the National Environmental Standard for Freshwater 2020 (as set out in the box below) *means works for the purpose of removing material, such as trees, debris, and sediment, that—* *(a) is deposited as the result of a natural hazard, and* *(b) is causing, or is likely to cause, an immediate hazard to people or property*	Support.	It is appropriate and efficient for the definition to align with the definition of this term in the National Environmental Standard for Freshwater 2020.	Retain this provision as notified.	Retain the provision as notified.	No further amendments required. Accept the reasons stated in the S.42A report.
FPI020.004	**Other infrastructure** has the same meaning as in regulation 3 of the National Environmental Standard for Freshwater 2020 (as set out in the box below) *means infrastructure, other than specified infrastructure, that was lawfully established before, and in place at, the close of 2 September 2020*	Support.	It is appropriate and efficient for the definition to align with the definition of this term in the National Environmental Standard for Freshwater 2020.	Retain this provision as notified.	Entire provision deleted.	No further amendments required. Accept the reasons stated in the S.42A report. This term will no longer be used in the pORPS and consequently, it can be deleted.
FPI020.005	**Over-allocation** has the same meaning as in clause 1.4 of the National Policy Statement for Freshwater Management 2020 (as set out in the box below) *in relation to both the quantity and quality of freshwater, is the situation where:* *(a) resource use exceeds a limit; or* *(b) if limits have not been set, an FMU or part of an FMU is degraded or degrading*	Support.	It is appropriate and efficient for the definition to align with the definition of this term in the National Policy Statement for Freshwater Management 2020.	Retain this provision as notified.	**Over-allocation, or over-allocated** has the same meaning as in clause 1.4 of the National Policy Statement for Freshwater Management 2020 (as set out in the box below) in relation to both the quantity and quality of freshwater, ~~is~~ means the situation where: (a) resource use exceeds a limit; ~~or~~ (b) if limits have not been set, an FMU or part of an FMU is degraded or degrading; or (c) an FMU or part of an FMU is not achieving an environmental flow or level set for it under clause 3.16.	No further amendments required. Accept the S.42A report author's view that amending the definition to align with the most recent version of the NPS-FM is appropriate.
FPI020.006	**Specified infrastructure** has the same meaning as in clause 3.21 of the National Policy Statement for Freshwater Management 2020 (as set out in the box below) *means any of the following:*	Support.	It is appropriate and efficient for the definition to align with the definition of this term in the National Policy Statement for Freshwater Management 2020.	Retain this provision as notified.	Entire provision deleted.	No further amendments required. Accept the reasons stated in the S.42A report. This term will no longer be used

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Submission ID	Provision	Silver Fern Farms' position	Silver Fern Farms' reasons	Relief sought by Silver Ferns Farms	S.42A-recommended text	J Kyle recommendation and reasons
	(a) *infrastructure that delivers a service operated by a lifeline utility (as defined in the Civil Defence Emergency Management Act 2002),* (b) *regionally significant infrastructure identified as such in a regional policy statement or regional plan,* (c) *any public flood control, flood protection, or drainage works carried out:* (i) *by or on behalf of a local authority, including works carried out for the purposes set out in section 133 of the Soil Conservation and Rivers Control Act 1951, or* (ii) *for the purpose of drainage by drainage districts under the Land Drainage Act 1908*					in the pORPS and consequently, can be deleted.
FPI020.007	**Specified rivers and lakes** has the same meaning as in Appendix 3 of the National Policy Statement for Freshwater Management 2020 (as set out in the box below) *means:* (a) *rivers that are fourth order or greater, using the methods outlined in the River Environment Classification System, National Institute of Water and Atmospheric Research, Version 1, and* (b) *lakes with a perimeter of 1.5km or more.*	Support.	It is appropriate and efficient for the definition to align with the definition of this term in the National Policy Statement for Freshwater Management 2020.	Retain this provision as notified.	Retain the provision as notified.	No further amendments required.
FPI020.008	**SRMR–I5 – Freshwater demand exceeds capacity in some places** **Statement** In water-short catchments, freshwater availability may not be able to meet competing demands from the health and well-being needs of the environment, the health and well-being needs of people, and the ability of people and communities to provide for their social, economic and cultural well-being. Many of these catchments are also experiencing urban growth, changes in rural land uses, and increased demand for hydro-electric generation. Individually and cumulatively these can alter demand including further increases in demand on freshwater supply. Some catchments are complex, making it challenging to identify or mitigate these effects. **Context** Freshwater, including rivers and streams, lakes, groundwater systems, and wetlands, is a finite resource, critical to the environment, society and the economy. In Otago, access to, allocation, and use of freshwater reflects current demands and historical development associated with "deemed permits" (water permits under the RMA 1991) and a permissive water resource management regime. The deemed permits originated from mining licences issued under historic mining legislation and which enable water to continue to be used for a range of uses until October 2021. Population growth and land-use intensification in urban and rural environments can create increased demand for freshwater for human consumption, irrigation and other economic uses. Freshwater resources in some places are reaching, or are	Amend.	Recognition of "industry" and "rural industry" is appropriate, given the importance of the industrial sector to Otago's economic prosperity and the reliance of "rural industry" (in particular) on the take and use of water from non-reticulated sources. The availability of water storage can enable water to be taken during periods of high availability and stored for use during periods when supply is constrained. This can reduce effects on the water resource and on other water users, while providing opportunities for habitat development or enhancement around constructed water storages. Given the water supply problems and impacts described in this Issue Statement, it would be appropriate for the PORPS to recognise the benefits of water storage in the "Economic" sub-section of the text, to inform the future work required in accordance with LF–FW–M6(6) (Regional plans), which seeks to "provide for the off-stream storage of surface water".	**SRMR–I5 – Freshwater demand exceeds capacity in some places** […] **Economic** Freshwater in the Otago region is a factor of production that directly contributes to human needs (urban water supply), agriculture, industry, including rural industry, hydroelectric power supply, and mineral extraction. Freshwater also indirectly contributes to the tourism industry through maintenance of freshwater assets for aesthetic and commercial recreational purposes. Lack of freshwater can negatively impact economic output of those industries that rely on water in the production process. To varying degrees these impacts can be mitigated through water efficiency measures, development of water storage and innovation. At the same time other industries, such as tourism that rely on the aesthetic characteristic of rivers and lakes, do not have such opportunities available to them and instead rely on management	**SRMR–I5 – Freshwater demand exceeds capacity in some places** […] **Economic** Freshwater in the Otago region is a factor of production that directly contributes to human needs (~~urban~~ water supply) ~~agriculture~~ primary production, industry, and hydro-electric power supply, ~~and mineral extraction~~. Freshwater also indirectly contributes to the tourism industry through maintenance of freshwater assets for aesthetic and commercial recreational purposes. Lack of freshwater can negatively impact economic output of those industries that rely on water in the production process. To varying degrees these impacts can be mitigated through water efficiency measures and innovation. At the same time other industries, such as tourism that rely on the aesthetic characteristic of rivers and lakes, do not have such opportunities available to them and instead rely on management regimes that sustain flows and water levels suitable for their activities.	No further amendments required. Accept the analysis provided in paragraphs [552] and [554] of the s42A report regarding the reference to "industry" and that water storage is addressed in new policy LF-FW-P7A.

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Submission ID	Provision	Silver Fern Farms' position	Silver Fern Farms' reasons	Relief sought by Silver Ferns Farms	S.42A-recommended text	J Kyle recommendation and reasons
	beyond, their sustainable abstraction limits. However, there continues to be debate in the community about how historical freshwater allocations can be adjusted to achieve a balance of economic, environmental, social and cultural needs. On 3 September 2020, new National Environmental Standards for Freshwater (NESF) and a new National Policy Statement for Freshwater Management (NPSFM) came into force. They have a goal of improving freshwater quality within five years, reversing past damage and bringing New Zealand's freshwater resources, waterways and ecosystems to a healthy state within a generation. The NPS-FM also clarified the need to provide first for the health and well-being of water bodies and freshwater ecosystems; then health and needs of people (such as drinking water); and finally the ability of people and communities to provide for their social, economic, and cultural well-being, now and in the future. **Impact snapshot** **Environmental** Freshwater abstraction can reduce water level or flow and connections between different water bodies. This can negatively impact ecosystems by affecting freshwater habitat size and the shape and condition of the water body, including bed, banks, margin, riparian vegetation, connections to groundwater, water chemistry (for example by increasing concentrations of pollutants), and interaction between species and their habitat. How much an ecosystem is affected by taking freshwater is determined by departure from natural flow regimes, taking into account magnitude, frequency, timing, duration and rate of change, and ecosystem capacity to recover. **Economic** Freshwater in the Otago region is a factor of production that directly contributes to human needs (urban water supply), agriculture (including irrigation), hydro-electric power supply, and mineral extraction. Freshwater also indirectly contributes to the tourism industry through maintenance of freshwater assets for aesthetic and commercial recreational purposes. Lack of freshwater can negatively impact economic output of those industries that rely on water in the production process. To varying degrees these impacts can be mitigated through water efficiency measures and innovation. At the same time other industries, such as tourism that rely on the aesthetic characteristic of rivers and lakes, do not have such opportunities available to them and instead rely on management regimes that sustain flows and water levels suitable for their activities. **Social** Ensuring appropriate freshwater supply for human use is available as part of planned urban growth is essential. It is possible this may require consideration of additional freshwater storage in the future. The region's freshwater assets also support a range of recreation uses, for example camping, fishing, water sports, and swimming. These values are strongly linked to environmental values and as such, reduced environmental flows have a corresponding negative impact on social and cultural values.			regimes that sustain flows and water levels suitable for their activities. *[Remainder of provision not shown here].*		

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Submission ID	Provision	Silver Fern Farms' position	Silver Fern Farms' reasons	Relief sought by Silver Ferns Farms	S.42A-recommended text	J Kyle recommendation and reasons
FPI020.009 FSFPI020.001	**SRMR–I6 - Declining water quality has adverse effects on the environment, our communities, and the economy** **Statement** While the pristine areas of Otago generally maintain good water quality, some areas of Otago demonstrate poorer quality and declining trends in water quality which can be attributed to discharges from land use intensification (both rural and urban) and land management practices. Erosion, run-off and soil loss can lead to sediment and nutrients being deposited into freshwater bodies resulting in declining water quality. **Context** The health of water is vital for the health of the environment, people and the economy. It is at the heart of culture and identity. Nationally, and in parts of Otago, freshwater is facing significant pressure. Population growth and land-use intensification in urban and rural environments has impacted the quality of water, increasing contamination from nutrients and sediment. Water quality affects a wide range of environmental health factors, human survival needs, and cultural, social, recreational, and economic uses. Some of the biggest impacts on water quality in Otago are considered to come from agriculture and urbanisation, through diffuse discharges and point source discharges. On 3 September 2020, new National Environmental Standards (NESF) and a new National Policy Statement (NPSFM) came into force to improve water quality within five years; and reverse past damage and bring New Zealand's freshwater resources, waterways and ecosystems to a healthy state within a generation. **Impact snapshot** **Environmental** Despite the region's lakes and rivers being highly valued by Otago communities, reports indicate there are reasons for concern about water quality and its trends with consequent potential impact on ecosystems and people. Water quality across Otago is variable. River water quality is best at river and stream reaches located at high or mountainous elevations under predominantly native vegetation cover, and mostly good in the upper areas of large river catchment and outlets from large lakes. Water quality is generally poorer in smaller low-elevation streams and coastal shallow lakes where they receive water from upstream pastoral areas or urban catchments. For example, catchments such as the Waiareka Creek, Kaikorai Stream, and the lower Clutha catchment, have some of the worst water quality in the region; Otago's central lakes are impacted by increased population, urban development and tourism demand; other areas, such as urban streams in Dunedin, intensified catchments in North Otago and some tributaries, also have poor water quality.	Amend.	Submission (FPI020.009) This Issue Statement is largely negative and fails to recognise that activities that affect water quality (like discharges) are often critical aspects of activities that have wider societal benefits, like food production. Improved water quality does not equate to a no-effects management regime. It would be appropriate for the Issue Statement to recognise that a balance is required to manage freshwater within an acceptable envelope of effects, in order to enables beneficial activities. Further submission (FSFPI020.001) Delete the reference to the NPSFM and NESF requiring actions "*to improve water quality, within five years*" as sought by Beef + Lamb New Zealand Ltd and Deer Industry New Zealand. No such requirement applies.	**SRMR–I6 - Declining water quality has adverse effects on the environment, our communities, and the economy** **Statement** While the pristine areas of Otago generally maintain good water quality, some areas of Otago demonstrate poorer quality and declining trends in water quality which can be attributed to discharges from land use intensification (both rural and urban) and land management practices. Erosion, run-off and soil loss can lead to sediment and nutrients being deposited into freshwater bodies resulting in declining water quality. <u>As such, there is a need to manage activities that affect water quality to achieve appropriate environmental, social, cultural and economic outcomes.</u> **Context** The health of water is vital for the health of the environment, people and the economy. It is at the heart of culture and identity. Nationally, and in parts of Otago, freshwater is facing significant pressure. Population growth and land-use intensification in urban and rural environments has impacted the quality of water, increasing contamination from nutrients and sediment. Water quality affects a wide range of environmental health factors, human survival needs (<u>such as drinking water supply and food production</u>), and cultural, social, recreational, and economic uses. Some of the biggest impacts on water quality in Otago are considered to come from agriculture and urbanisation, through diffuse discharges and point source discharges. On 3 September 2020, new National Environmental Standards (NESF) and a new National Policy Statement (NPSFM) came into force to improve water quality ~~within five years~~; and reverse past damage and bring New Zealand's freshwater resources, waterways and ecosystems to a healthy state within a generation. *[Remainder of provision not shown here].*	**SRMR–I6 - Declining water quality has adverse effects on the environment, our communities, and the economy** **Statement** While the pristine areas of Otago generally maintain <u>very</u> good water quality, some areas of Otago demonstrate poorer quality and declining trends in water quality which can <u>often</u> be attributed to discharges from land use intensification (both rural and urban) and land management practices. Erosion, run-off and soil loss can lead to sediment and nutrients being deposited into freshwater bodies resulting in declining water quality. **Context** The health of water is vital for the health of the environment, people and the economy. It is at the heart of culture and identity. Nationally, and in parts of Otago, freshwater is facing significant pressure. Population growth and land-use intensification in urban and rural environments has impacted the quality of water, increasing contamination from nutrients and sediment. Water quality affects a wide range of environmental health factors, human <u>health and</u> survival needs, and cultural, social, recreational, and economic uses. Some of the biggest impacts on water quality in Otago are considered to come from agriculture and urbanisation, through diffuse discharges and point source discharges. On 3 September 2020, new National Environmental Standards (NESF) and a new National Policy Statement (NPSFM) came into force to <u>make immediate improvements</u> ~~to improve~~ water quality within five years; and reverse past ~~damage~~ <u>degradation</u> and bring New Zealand's freshwater resources, waterways and ecosystems to a healthy state within a generation. **Impact snapshot** **Environmental** Despite the region's lakes and rivers being highly valued by Otago communities, reports indicate <u>that in many areas</u> there are reasons for concern about water quality and its trends with consequent potential impact on ecosystems and people. Water quality across Otago is variable. River	No further amendments required. Accept the analysis provided in paragraphs [600(d)] and [603] of the s42A report regarding the recommendation to accept the relief sought by Silver Fern Farms in part.

Appendix B

Submission ID	Provision	Silver Fern Farms' position	Silver Fern Farms' reasons	Relief sought by Silver Ferns Farms	S.42A-recommended text	J Kyle recommendation and reasons
	Between 2006 and 2017, trends in a number of water quality parameters were worsening. For E. coli, for example, 30% of sites had a probable or significant worsening trend compared to 7% of sites that had either stable or improving trends. In urban streams in Dunedin, intensified catchments in North Otago and some tributaries of the Pomahaka, E. coli was the worst performing variable. In many cases, the specific source of contamination is unknown. There are many different types and sizes of lakes in Otago. ORC monitors water quality in lakes, of which eight have generally shown good water quality. There have been concerns within the community about the quality of water in Lakes Wānaka, Wakatipu and Hayes. Groundwater quality also varies across the region, with some areas having elevated E. coli and nitrate concentrations above the NZ Drinking Water Standards. The main areas with elevated nitrate concentrations are North Otago and the Lower Clutha. Some bores across the region have exceeded the drinking water standards for E. coli; highlighting localized problems, likely due to inadequate bore head security. In addition to human sources of poorer groundwater quality, low groundwater quality from natural or geologic sources may also affect the potability of bore water throughout Otago (e.g. naturally occurring arsenic or boron concentrations found in bores associated with particularly geologies). Stock entering water bodies can lead to pugging and destruction of riparian soils and beds that play an important role in filtering contaminants, as well as excreting directly in waterways. The growing practice of wintering cattle in Otago can exacerbate leaching effects, which may not connect to surface water until spring, creating spikes in nutrient loads. Sediment is a key issue for freshwater quality throughout Otago, including coastal estuaries where it can significantly impact the life supporting capacity of waterways. Urban development is a key generator of sediment input to lakes and rivers in Central Otago, from building platforms and from stormwater contamination. Activities such as agricultural intensification, mining, and forestry also contribute. Agricultural intensification also contributes to nutrients (nitrogen and phosphorus) leaching into underlying groundwater or running off into surface water bodies, and can also increase the risk of E.coli contamination from animal waste. Urban environmental contaminants include hydrocarbons, and metals from roads and structures. They often wash into urban stormwater systems and pass unfiltered into water bodies, or the coastal marine area. Stormwater effects, particularly in urban areas, are poorly understood. Wastewater and stormwater systems may not be adequate in some places due to aging infrastructure, rapid growth pressure, or insufficient investment in replacement or upgrades. Overflows of wastewater (sewage and waste products) create significant risks for water quality. These can enter the environment either directly or through stormwater systems, particularly in flood events. Economic Water pollution (from nutrients, chemicals, pathogens and sediment) can have far-reaching					water quality is best at river and stream reaches located at high or mountainous elevations under predominantly native vegetation cover, and mostly good in the upper areas of large river catchment and outlets from large lakes. Water quality is generally poorer in smaller low-elevation streams and coastal shallow lakes where they receive water from upstream pastoral areas or urban catchments. For example, catchments such as the Waiareka Creek, Kaikorai Stream, and the lower Clutha catchment, have some of the worst water quality in the region; Otago's central lakes are impacted by increased population, urban development and tourism demand; other areas, such as urban streams in Dunedin, intensified catchments in North Otago and some tributaries, also have poor water quality. Between 2006 and 2017, trends in a number of water quality parameters were worsening. For E. coli, for example, 30% of sites had a probable or significant worsening trend compared to 7% of sites that had either stable or improving trends. In urban streams in Dunedin, intensified catchments in North Otago and some tributaries of the ~~Pomahaka~~ Pomāhaka, E. coli was the worst performing variable. In many cases, the specific source of contamination is unknown. There are many different types and sizes of lakes in Otago. ORC monitors water quality in lakes, of which eight have generally shown good water quality. There have been concerns within the community about the quality of water in Lake~~s~~ Wānaka, Whakatipu Waimāori/Lake Wakatipu and Lake Hayes. Groundwater quality also varies across the region, with some areas having elevated E. coli and nitrate concentrations above the NZ Drinking Water Standards. The main areas with elevated nitrate concentrations are North Otago and the Lower Clutha. Some bores across the region have exceeded the drinking water standards for E. coli; highlighting localized problems, likely due to inadequate bore head security. In addition to human sources of poorer groundwater quality, low groundwater quality from natural or geologic sources may also affect the potability of bore water	

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	effects potentially impacting tourism, property values, commercial fishing, recreational businesses, and many other sectors that depend on clean water. These impacts can be direct (varying the quality of primary production outputs such as fish); increasing costs of production through mitigation or remediation costs (drinking water treatment cost, riparian restoration); loss of enjoyment and benefit from tourism uses, and indirect such as cost to human health and associated medical costs, or reduction in brand value (e.g. Brand New Zealand). **Social** For the wider community, water is a source of kai and of recreation, including swimming, fishing and water sports. Otago's rivers, lakes, estuaries and bays are important destinations for recreational use including swimming, fishing and water sports. Eighty-two per cent of Otago's rivers and lakes are swimmable. Where water quality cannot support these activities, the lifestyle of those living in Otago is impacted. Degraded water quality reduces the mauri of the water and the habitats and species it supports, therefore also negatively affecting mahika kai and taoka species and places. This constitutes a loss of Kāi Tahu culture, affecting the intergenerational transfer of knowledge handed down from tūpuna over hundreds of years; and it culminates in a loss of rakatirataka and mana.				throughout Otago (e.g. naturally occurring arsenic or boron concentrations found in bores associated with particularly geologies). Stock entering water bodies can lead to pugging and destruction of riparian soils and beds that play an important role in filtering contaminants, as well as excreting directly in waterways. The growing practice of wintering cattle in Otago can exacerbate leaching effects, which may not connect to surface water until spring, creating spikes in nutrient loads. Sediment is a key issue for freshwater quality throughout Otago, including coastal estuaries where it can significantly impact the life supporting capacity of waterways. Urban development is a key generator of sediment input to lakes and rivers in Central Otago, from building platforms and from stormwater contamination. Activities such as agricultural land use ~~intensification~~, mining, and forestry also contribute. Agricultural land use ~~intensification~~ also contributes to nutrients (nitrogen and phosphorus) leaching into underlying groundwater or running off into surface water bodies, and can also increase the risk of E.coli contamination from animal waste. Urban environmental contaminants include hydrocarbons, and metals from roads and structures. They often wash into urban stormwater systems and pass unfiltered into water bodies, or the coastal marine area. Stormwater effects, particularly in urban areas, are poorly understood. Wastewater and stormwater systems may not be adequate in some places due to aging infrastructure, rapid growth pressure, or insufficient investment in replacement or upgrades. Overflows of wastewater (sewage and waste products) create significant risks for water quality. These can enter the environment either directly or through stormwater systems, particularly in flood events. **Economic** Water pollution (from nutrients, chemicals, pathogens, ~~and~~ sediment and other contaminants) can have far-reaching effects potentially impacting tourism, property values, commercial fishing, recreational businesses, and many other sectors that depend on clean water. These	

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					impacts can be direct (varying the quality of primary production outputs such as fish); increasing costs of production through mitigation or remediation costs (drinking water treatment cost, riparian restoration); loss of enjoyment and benefit from tourism uses, and indirect such as cost to human health and associated medical costs, or reduction in brand value (e.g. Brand New Zealand). **Social** For the wider community, water is a source of kai ~~and~~ for harvesting and food production. Water is also a source of recreation, including swimming, fishing and water sports. There are multiple dimensions to the way water quality impacts on peoples' interaction with water bodies, including environmental, health, landscape, and aesthetic factors. Otago's rivers, lakes, estuaries and bays are important destinations for recreational use including swimming, fishing and water sports. Eighty-two per cent of Otago's rivers and lakes are swimmable. Where water quality cannot support these activities, the lifestyle of those living in Otago is impacted. Degraded water quality reduces the mauri of the water and the habitats and species it supports, therefore also negatively affecting mahika kai and taoka species and places. This constitutes a loss of Kāi Tahu culture, affecting the intergenerational transfer of knowledge handed down from tūpuna over hundreds of years; and it culminates in a loss of rakatirataka and mana.	
FPI020.010	**LF–WAI–O1 – Te Mana o te Wai** The mauri of Otago's water bodies and their health and well-being is protected, and restored where it is degraded, and the management of land and water recognises and reflects that: (1) water is the foundation and source of all life – na te wai ko te hauora o ngā mea katoa, (2) there is an integral kinship relationship between water and Kāi Tahu whānui, and this relationship endures through time, connecting past, present and future, (3) each water body has a unique whakapapa and characteristics, (4) water and land have a connectedness that supports and perpetuates life, and	Amend.	The "restoration" of degraded water bodies may not always be practicable during the term of the PORPS. Therefore, it would be appropriate to "promote" restoration, similarly to the approach of the National Policy Statement for Freshwater 2020 towards natural wetlands e.g., at clause 3.22(4). This would also align more closely to policy LF-FW-P7(1) which requires water bodies with degraded quality to be "improved" rather than "restored".	**LF–WAI–O1 – Te Mana o te Wai** The mauri of Otago's water bodies and their health and well-being is protected, and restoration is promoted where it is degraded, and the management of land and water recognises and reflects that: *[Remainder of provision not shown here].*	**LF–WAI–O1 – Te Mana o te Wai** The mauri of Otago's water bodies and their health and well-being is protected, and restored where it is degraded, and the management of land and water recognises and reflects that: (1) water is the foundation and source of all life – na te wai ko te hauora o ngā mea katoa, (2) there is an integral kinship relationship between water and Kāi Tahu whānui, and this relationship ~~endures through time, connecting~~ connects past, present and future, (3) each water body has a unique whakapapa and characteristics,	No further amendments required. Accept the analysis provided in paragraph [757] of the s42A report regarding the recommendation to decline the relief sought.

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	(5) Kāi Tahu exercise rakatirataka, manaakitaka and their kaitiakitaka duty of care and attention over wai and all the life it supports.				(4) fresh water, land and coastal water ~~land~~ have a connectedness that supports and perpetuates life, ~~and~~ (4A) protecting the health and well-being of water protects the wider environment and the mauri of water, (5) Kāi Tahu exercise rakatirataka, manaakitaka and their kaitiakitaka duty of care and attention over wai and all the life it supports. (6) all people and communities have a responsibility to exercise stewardship, care, and respect in the management of fresh water.	
FPI020.011	**LF–WAI–P1 – Prioritisation** In all management of fresh water in Otago, prioritise: (1) first, the health and well-being of water bodies and freshwater ecosystems, te hauora o te wai and te hauora o te taiao, and the exercise of mana whenua to uphold these, (2) second, the health and well-being needs of people, te hauora o te tangata; interacting with water through ingestion (such as drinking water and consuming harvested resources) and immersive activities (such as harvesting resources and bathing), and (3) third, the ability of people and communities to provide for their social, economic, and cultural wellbeing, now and in the future.	Support.	The management hierarchy expressed in this policy aligns with clauses 1.3(5), 3.2(2) and 3.7(1) of the National Policy Statement for Freshwater 2020.	Retain as notified.	**LF–WAI–P1 – Prioritisation** In all decision-making affecting ~~management of~~ fresh water in Otago, prioritise: (1) first, the health and well-being of water bodies and freshwater ecosystems, (te hauora o te wai) and the contribution of this to the health and well-being of the environment (te hauora o te taiao), ~~and~~ together with the exercise of mana whenua to uphold these, (2) second, ~~the~~ health ~~and well-being~~ needs of people, (te hauora o te tangata); interacting with water through ingestion (such as drinking water and consuming ~~harvested~~ resources harvested from the water body) and immersive activities (such as harvesting resources and primary contact~~bathing~~), and (3) third, the ability of people and communities to provide for their social, economic, and cultural wellbeing, now and in the future.	No further amendments required. Accept the analysis provided in section 8.3.5.3 of the s42A report supporting the recommended amendments.
Nil	Not in the notified text – a new objective recommended in the s42A report.	Nil	Nil	Nil	**LF-FW-O1A – Region-wide objective for fresh water** In all FMUs and rohe in Otago and within the timeframes specified in the *freshwater* visions in LF-VM-O2 to LF-VM-O6: (1) healthy *freshwater* ecosystems support healthy populations of indigenous species and *mahika kai* that are safe for consumption,	No further amendments required. Support the addition of this objective, and consequential amendments to LF-VM-O2(7)(c), LF-FW-O8 and LF-FW-O9, as summarised at paragraph [960(b)] of the s42A report.

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					(2) the interconnection of *land*, *freshwater* (including *groundwater*) and *coastal water* is recognised, (3) indigenous species migrate easily and as naturally as possible, (4) the natural character, including form and function, of *water bodies* reflects their natural behaviours to the greatest extent practicable, (5) the ongoing relationship of Kāi Tahu with *wāhi tūpuna*, including access to and use of *water bodies*, is sustained, (6) the health of the *water* supports the health of people and their connections with *water bodies*, (7) innovative and sustainable *land* and *water* management practices provide for the health and well-being of *water bodies* and *freshwater* ecosystems and improve resilience to the *effects* of *climate change*, and (8) direct *discharges* of *wastewater* to *water bodies* are phased out to the greatest extent practicable.	
FPI020.012	**LF-VM-O2 – Clutha Mata-au FMU vision** In the Clutha Mata-au FMU: (1) management of the FMU recognises that: (a) the Clutha Mata-au is a single connected system ki uta ki tai, and (b) the source of the wai is pure, coming directly from Tawhirimatea to the top of the mauka and into the awa, (2) fresh water is managed in accordance with the LF–WAI objectives and policies, (3) the ongoing relationship of Kāi Tahu with wāhi tūpuna is sustained, (4) water bodies support thriving mahika kai and Kāi Tahu whānui have access to mahika kai, (5) indigenous species migrate easily and as naturally as possible along and within the river system, (6) the national significance of the Clutha hydro-electricity generation scheme is recognised, (7) in addition to (1) to (6) above: (a) in the Upper Lakes rohe, the high quality waters of the lakes and their tributaries are protected,	Amend.	**LF-VM-O2 – Clutha Mata-au FMU vision** [...] (7) in addition to (1) to (6) above: [...] (c) in the Lower Clutha rohe: (i) there is no further modification of the shape and behaviour of the water bodies and opportunities to restore the natural form and function of water bodies are promoted wherever possible, (ii) the ecosystem connections between freshwater, wetlands and the coastal environment are preserved and, wherever possible, restored, (iii) innovative and sustainable land and water management practices support food production and ~~land management~~	**LF-VM-O2 – Clutha Mata-au FMU vision** In the Clutha Mata-au FMU: (1) management of the FMU recognises that: (a) the Clutha Mata-au is a single connected system ki uta ki tai, and (b) the source of the wai is pure, coming directly from Tawhirimatea to the top of the mauka and into the awa, ~~(2) fresh water is managed in accordance with the LF–WAI objectives and policies,~~ ~~(3) the ongoing relationship of Kāi Tahu with wāhi tūpuna is sustained,~~ ~~(4) water bodies support thriving mahika kai and Kāi Tahu whānui have access to mahika kai,~~ ~~(5) indigenous species migrate easily and as naturally as possible along and within the river system,~~	No further amendments required. Accept the analysis at s42A report [1059] with respect to the key aspects of sub-clauses (7)(c)(i) to (iv) being captured in the new objective *LF-FW-O1A – Region-wide objective for fresh water*.

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	recognising the significance of the purity of these waters to Kāi Tahu and to the wider community, (b) in the Dunstan, Manuherekia and Roxburgh rohe: (i) flows in water bodies sustain and, wherever possible, restore the natural form and function of main stems and tributaries to support Kāi Tahu values and practices, and (ii) Innovative and sustainable land and water management practices support food production in the area and reduce discharges of nutrients and other contaminants to water bodies so that they are safe for human contact, and (iii) sustainable abstraction occurs from main stems or groundwater in preference to tributaries, (c) in the Lower Clutha rohe: (i) there is no further modification of the shape and behaviour of the water bodies and opportunities to restore the natural form and function of water bodies are promoted wherever possible, (ii) the ecosystem connections between freshwater, wetlands and the coastal environment are preserved and, wherever possible, restored, (iii) land management practices reduce discharges of nutrients and other contaminants to water bodies so that they are safe for human contact, and (iv) there are no direct discharges of wastewater to water bodies, and (8) the outcomes sought in (7) are to be achieved within the following timeframes: (a) by 2030 in the Upper Lakes rohe, (b) by 2045 in the Dunstan, Roxburgh and Lower Clutha rohe, and (c) by 2050 in the Manuherekia rohe			~~practices reduce~~ discharges of nutrients and other contaminants to water bodies <u>are managed</u> so that <u>water bodies</u>~~y~~ are safe for human contact, and (iv) there are no direct discharges of <u>sewage</u> ~~wastewater~~ to water bodies, and (v) <u>there are no direct discharges of untreated greywater, industrial waste or trade waste to water.</u> *[Remainder of provision not shown here].*	(6) the national significance of the Clutha hydro-electricity generation scheme is recognised, (7) ~~in addition to (1) to (6) above:~~ ~~(a)~~ in the Upper Lakes rohe, the high quality waters of the lakes and their tributaries are protected, <u>and if degraded are improved,</u> recognising the significance of the purity of these waters to Kāi Tahu and to the wider community, ~~(b) in the Dunstan, Manuherekia and Roxburgh rohe:~~ ~~(i) flows in water bodies sustain and, wherever possible, restore the natural form and function of main stems and tributaries to support Kāi Tahu values and practices, and~~ ~~(ii) innovative and sustainable land and water management practices support food production in the area and reduce discharges of nutrients and other contaminants to water bodies so that they are safe for human contact, and~~ ~~(iii) sustainable abstraction occurs from main stems or groundwater in preference to tributaries,~~ ~~(c)~~ <u>7A</u> in the Lower Clutha rohe: ~~(i) there is no further modification of the shape and behaviour of the water bodies and~~ opportunities to restore the natural form and function of water bodies are promoted wherever possible, ~~(ii) the ecosystem connections between freshwater, wetlands and the coastal environment are preserved and, wherever possible, restored,~~	

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					~~(iii) land management practices reduce discharges of nutrients and other contaminants to water bodies so that they are safe for human contact, and~~ ~~(iv) there are no direct discharges of wastewater to water bodies, and~~ (8) the outcomes sought in this vision ~~(7)~~ are to be achieved within the following timeframes: (a) by 2030 in the Upper Lakes rohe, (b) by 2045 in the Dunstan, Roxburgh and Lower Clutha rohe, and (c) by 2050 in the Manuherekia rohe.	
FSFPI020.005	**LF–VM–P6 – Relationship between FMUs and rohe** Where rohe have been defined within FMUs: (1) environmental outcomes must be developed for the FMU within which the rohe is located, (2) if additional environmental outcomes are included for rohe, those environmental outcomes: (a) set target attribute states that are no less stringent than the parent FMU environmental outcomes if the same attributes are adopted in both the rohe and the FMU, and (b) may include additional attributes and target attribute states provided that any additional environmental outcomes give effect to the environmental outcomes for the FMU, (3) limits and action plans to achieve environmental outcomes may be developed for the FMU or the rohe or a combination of both, (4) any limit or action plan developed to apply within a rohe: (a) prevails over any limit or action plan developed for the FMU for the same attribute, unless explicitly stated to the contrary, and (b) must be no less stringent than any limit set for the parent FMU for the same attribute, and (c) must not conflict with any limit set for the underlying FMU for attributes that are not the same, and (5) the term "no less stringent" in this policy applies to attribute states (numeric and narrative) and any other metrics and timeframes (if applicable).	Amend.	Silver Fern Farms agrees that the development of additional rohe-specific environmental outcomes within FMUs should be subject to consultation with Kāi Tahu and the community.	As requested by Ballance Agri-Nutrients Ltd, amend LF-VM-P6 to include reference to consultation when setting rohe-specific environmental outcomes.	**LF–VM–P6 – Relationship between FMUs and rohe** Where rohe have been defined within FMUs: (1) environmental outcomes must be developed for the FMU within which the rohe is located, (2) ~~if~~ any additional rohe-specific environmental outcomes ~~are included for rohe, those environmental outcomes~~: (a) must set target attribute states that are no less stringent than the parent FMU environmental outcomes if the same attributes are adopted in both the rohe and the FMU, and (b) may include additional attributes and target attribute states provided that any additional environmental outcomes give effect to the environmental outcomes for the FMU, (3) limits and action plans to achieve environmental outcomes, including by achieving target attribute states, may be developed for the FMU or the rohe or a combination of both, (4) any limit or action plan developed to apply within a rohe:	No further amendments required. Accept the analysis at s42A report [1214] that the relief sought by Silver Fern Farms is provided in the author's recommended amendments to *LF-VM-M3 - Community involvement*.

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					(a) prevails over any limit or action plan developed for the FMU for the same attribute, unless explicitly stated to the contrary, and (b) must be no less stringent than any limit or action plan set for the parent FMU for the same attribute, and (c) must not conflict with any limit set or action plan developed for the ~~underlying~~ parent FMU for attributes that are not the same, and (5) the term "no less stringent" in this policy applies to attribute states (numeric and narrative) and any other metrics and timeframes (if applicable).	
FPI020.013 FSFPI020.007	**LF–FW–O8 – Fresh water** In Otago's water bodies and their catchments: (1) the health of the wai supports the health of the people and thriving mahika kai, (2) water flow is continuous throughout the whole system, (3) the interconnection of fresh water (including groundwater) and coastal waters is recognised, (4) native fish can migrate easily and as naturally as possible and taoka species and their habitats are protected, and (5) the significant and outstanding values of Otago's outstanding water bodies are identified and protected.	Amend	Submission: Silver Fern Farms questions whether clause (2), requiring "continuous flow throughout the whole system" is reflective of natural or current hydrological conditions across all of the region's catchments and waterways. If not, this aspect of the objective is unrealistic to achieve. Further submission:	Delete LF–FW–O8(2). Add a new sub-clause LF–FW–O8(5) as recommended by Federated Farmers of New Zealand: *In Otago's water bodies and their catchments:* *(1) the health of the wai supports the health of the people, and thriving mahika kāi, and the ability of people and communities to provide for their social, economic and cultural wellbeing, now and in the future,* *~~(2) water flow is continuous throughout the whole system~~* *(2)~~(3)~~ the interconnection of fresh water (including groundwater) and coastal waters is recognised,* *(3)~~(4)~~ native fish can migrate easily and as naturally as possible and taoka species and their habitats are protected, and* *(4)~~(5)~~ the significant and outstanding values of Otago's outstanding water bodies are identified and protected.,* *(5) sustainable and integrated water allocation and abstraction supports primary production and rural communities.*	Delete LF-FW-O8.	No further amendments required. Accept the analysis at s42A report: › at [912], [919] and [920] in relation to the recommendation to delete sub-clause (2) as sought by Silver Fern Farms and others; and › At [1297] in relation to policy directions on water use being addressed to an extent in *LF-FW-P7A Water allocation and use.*

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FPI020.014	**LF–FW–O9 – Natural wetlands** Otago's natural wetlands are protected or restored so that: (1) mahika kai and other mana whenua values are sustained and enhanced now and for future generations, (2) there is no decrease in the range and diversity of indigenous ecosystem types and habitats in natural wetlands, (3) there is no reduction in their ecosystem health, hydrological functioning, amenity values, extent or water quality, and if degraded they are improved, and (4) their flood attenuation capacity is maintained.	Amend.	The required "no decrease" and "no reduction" to natural wetland values (LF-FW-O9(2) and (3)) are unqualified and may be impractical to implement at a project consenting level, because the requirements are tantamount to a direction to avoid all adverse effects.	Delete LF–FW–O9(2) and (3) or amend to ensure that the objective contemplates the grant of resource consents as provided for by the NPSFM and NESF.	**LF–FW–O9 – Natural wetlands** Otago's natural wetlands are protected or restored so that: (1) mahika kai and other mana whenua values are sustained and enhanced now and for future generations, (2) there is no net decrease, and preferably an increase, in the extent ~~range~~ and diversity of indigenous ecosystem types and habitats in natural wetlands, (3) there is no reduction and, where degraded, there is an improvement in ~~their~~ wetland ecosystem health, hydrological functioning, amenity values, extent or water quality~~, and if degraded they are improved~~, and (4) their flood attenuation and water storage capacity is maintained or improved.	Amend as follows: **LF–FW–O9 – Natural wetlands** Otago's natural wetlands are protected or restored so that: (1) mahika kai and other mana whenua values are sustained and enhanced now and for future generations, (2) there is no net decrease, and preferably a~~n~~ net increase, in the extent of natural wetlands and in the extent ~~and~~ diversity of indigenous ecosystem types and habitats in natural wetlands, (3) there is no reduction and, where degraded, there is an improvement in wetland ecosystem health, hydrological functioning, amenity values~~, extent~~ or water quality, and (4) their flood attenuation and water storage capacity is maintained or improved.
FPI020.015 FSFPI020.002	**LF–FW–P7 – Fresh water** Environmental outcomes, attribute states (including target attribute states) and limits ensure that: (1) the health and well-being of water bodies is maintained or, if degraded, improved, (2) the habitats of indigenous species associated with water bodies are protected, including by providing for fish passage, (3) specified rivers and lakes are suitable for primary contact within the following timeframes: (a) by 2030, 90% of rivers and 98% of lakes, and (b) by 2040, 95% of rivers and 100% of lakes, and (4) mahika kai and drinking water are safe for human consumption, (5) existing over-allocation is phased out and future over-allocation is avoided, and (6) fresh water is allocated within environmental limits and used efficiently.	Amend	Submission: Further submission: Silver Fern Farms agrees with Meridian Energy's recommended amendments to sub-clause (2) of this policy, which would ensure that "protection" is not ascribed to all habitats in an unqualified fashion.	**LF–FW–P7 – Fresh water** Environmental outcomes, attribute states (including target attribute states) and limits ensure that: (1) the health and well-being of water bodies is maintained or, if degraded, improved, (2) the habitats of significant indigenous species associated with water bodies are protected, including by providing for fish passage, (3) specified rivers and lakes are suitable for primary contact within the following timeframes: (a) by 2030, ~~9~~80% of rivers and ~~98% of~~ lakes, and (b) by 2040, 90~~5~~% of rivers and ~~100% of~~ lakes, and *[Remainder of provision not shown here].*	**LF–FW–P7 – Fresh water** Environmental outcomes, attribute states (including target attribute states), environmental flows and levels, and limits ensure that: (1) the health and well-being of water bodies is maintained or, if degraded, improved, (2) the habitats of indigenous freshwater species ~~associated with water bodies~~ are protected and sustained, including by providing for fish passage, (2A) the habitats of trout and salmon are protected insofar as this is consistent with (2), (3) specified rivers and lakes are suitable for primary contact within the following timeframes: (a) by 2030, 90% of rivers and 98% of lakes, and (b) by 2040, 95% of rivers and 100% of lakes, and (4) resources harvested from water bodies including mahika kai and drinking water are safe for human consumption,	Insert the word "significant" at (2) and delete (5) as follows: **LF–FW–P7 – Fresh water** Environmental outcomes, attribute states (including target attribute states), environmental flows and levels, and limits ensure that: (1) the health and well-being of water bodies is maintained or, if degraded, improved, (2) the significant habitats of indigenous freshwater species are protected and sustained, including by providing for fish passage, (2A) the habitats of trout and salmon are protected insofar as this is consistent with (2), (3) specified rivers and lakes are suitable for primary contact within the following timeframes: (a) by 2030, 90% of rivers and 98% of lakes, and (b) by 2040, 95% of rivers and 100% of lakes, and (4) resources harvested from water bodies including mahika kai and

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					(5) existing over-allocation is phased out and future over-allocation is avoided~~;~~ ~~and~~ ~~(6) fresh water is allocated within environmental limits and used efficiently~~.	drinking water are safe for human consumption.~~;~~ ~~(5) existing over-allocation is phased out and future over-allocation is avoided.~~
Nil.	Not in the notified text – a new policy recommended in the s42A report.	Nil.	Nil.	Nil.	**LF-FW-P7A – Water allocation and use** Within limits and in accordance with any relevant environmental flows and levels, the benefits of using fresh water are recognised and over-allocation is either phased out or avoided by: (1) allocating fresh water efficiently to support the social, economic, and cultural well-being of people and communities to the extent possible within limits, including for: (a) community drinking water supplies, (b) renewable electricity generation, and (c) land-based primary production, (2) ensuring that no more fresh water is abstracted than is necessary for its intended use, (3) ensuring that the efficiency of freshwater abstraction, storage, and conveyancing infrastructure is improved, including by providing for off-stream storage capacity, and (4) providing for spatial and temporal sharing of allocated fresh water between uses and users where feasible.	Amend (1) to delete duplication of reference to "*within limits*", as follows: **LF-FW-P7A – Water allocation and use** Within limits and in accordance with any relevant environmental flows and levels, the benefits of using fresh water are recognised and over-allocation is either phased out or avoided by: (1) allocating fresh water efficiently to support the social, economic, and cultural well-being of people and communities to the extent possible ~~within limits~~, including for: *[Remainder of provision not shown here].*
FPI020.016	**LF–FW–P9 – Protecting natural wetlands** Protect natural wetlands by: (1) avoiding a reduction in their values or extent unless: (a) the loss of values or extent arises from: (i) the customary harvest of food or resources undertaken in accordance with tikaka Māori, (ii) restoration activities, (iii) scientific research, (iv) the sustainable harvest of sphagnum moss,	Amend.	The requirement of sub-clause (1)(b)(iv) to manage effects on indigenous biodiversity by applying ECO–P3 or ECO–P6 does not accord with NPSFM cl. 3.22(1)(b), insofar as it substitutes ECO–P3 or ECO–P6 for the NPSFM effects management hierarchy. Silver Fern Farms' submission on the non-freshwater parts of the PORPS, and the associated statement of evidence of Steve Tuck lodged on behalf of Silver Fern Farms, explained why ECO-P3, ECO-P6 and the associated appendices APP2 and APP3 are problematic.	Delete sub-clause LF–FW–P9 (1)(b)(iv).	**LF–FW–P9 – Protecting natural wetlands** Protect natural wetlands by implementing clause 3.22(1) to (3) of the NPSFM, except that: (1) in the coastal environment, natural wetlands must also be managed in accordance with the NZCPS, and (2) when managing the adverse effects of an activity on indigenous biodiversity, the effects management hierarchy (in relation to indigenous biodiversity) applies instead of the effects	Amend to delete sub-clause (2) as follows: **LF–FW–P9 – Protecting natural wetlands** Protect natural wetlands by implementing clause 3.22(1) to (3) of the NPSFM, except that~~:~~ ~~(1)~~ in the coastal environment, natural wetlands must also be managed in accordance with the NZCPS~~, and~~ ~~(2) when managing the adverse effects of an activity on indigenous biodiversity, the effects~~

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	(v) the construction or maintenance of wetland utility structures, (vi) the maintenance of operation of specific infrastructure, or other infrastructure, (vii) natural hazard works, or (b) the Regional Council is satisfied that: (i) the activity is necessary for the construction or upgrade of specified infrastructure, (ii) the specified infrastructure will provide significant national or regional benefits, (iii) there is a functional need for the specified infrastructure in that location, (iv) the effects of the activity on indigenous biodiversity are managed by applying either ECO–P3 or ECO–P6 (whichever is applicable), and (v) the other effects of the activity (excluding those managed under (1)(b)(iv)) are managed by applying the effects management hierarchy, and (2) not granting resource consents for activities under (1)(b) unless the Regional Council is satisfied that: (a) the application demonstrates how each step of the effects management hierarchies in (1)(b)(iv) and (1)(b)(v) will be applied to the loss of values or extent of the natural wetland, and (b) any consent is granted subject to conditions that apply the effects management hierarchies in (1)(b)(iv) and (1)(b)(v).				management hierarchy (in relation to natural wetlands and rivers). ~~Protect natural wetlands by:~~ ~~(1) avoiding a reduction in their values or extent unless:~~ ~~(a) the loss of values or extent arises from:~~ ~~(i) the customary harvest of food or resources undertaken in accordance with tikaka Māori,~~ ~~(ii) restoration activities,~~ ~~(iii) scientific research,~~ ~~(iv) the sustainable harvest of sphagnum moss,~~ ~~(v) the construction or maintenance of wetland utility structures,~~ ~~(vi) the maintenance of operation of specific infrastructure, or other infrastructure,~~ ~~(vii) natural hazard works, or~~ ~~(b) the Regional Council is satisfied that:~~ ~~(i) Othe activity is necessary for the construction or upgrade of specified infrastructure,~~ ~~(ii) the specified infrastructure will provide significant national or regional benefits,~~ ~~(iii) there is a functional need for the specified infrastructure in that location,~~ ~~(iv) the effects of the activity on indigenous biodiversity are managed by applying either ECO–P3 or ECO–P6 (whichever is applicable), and~~ ~~(v) the other effects of the activity (excluding those managed under (1)(b)(iv)) are managed by applying the effects management hierarchy, and~~ ~~(2) not granting resource consents for activities under (1)(b) unless the Regional Council is satisfied that:~~	~~management hierarchy (in relation to indigenous biodiversity) applies instead of the effects management hierarchy (in relation to natural wetlands and rivers).~~

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					~~(a) the application demonstrates how each step of the effects management hierarchies in (1)(b)(iv) and (1)(b)(v) will be applied to the loss of values or extent of the natural wetland, and~~ ~~(b) any consent is granted subject to conditions that apply the effects management hierarchies in (1)(b)(iv) and (1)(b)(v).~~	
FPI020.017 FSFPI020.003	**LF–FW–P10 – Restoring natural wetlands** Improve the ecosystem health, hydrological functioning, water quality and extent of natural wetlands that have been degraded or lost by requiring, where possible: (1) an increase in the extent and quality of habitat for indigenous species, (2) the restoration of hydrological processes, (3) control of pest species and vegetation clearance, and (4) the exclusion of stock.	Amend.	Submission: A wide range of circumstances is likely to apply to natural wetland restoration efforts across Otago. Therefore, "requiring, where possible" improvements is potentially problematic. The term 'practicable' would provide useful flexibility for cases where restoration is possible but not practicable. Further submission: Silver Fern Farms agrees with the recommendation of Dairy NZ to delete the reference in this policy to improving characteristics of wetlands that have been "lost".	**LF–FW–P10 – Restoring natural wetlands** Improve the ecosystem health, hydrological functioning, water quality and extent of natural wetlands that have been degraded ~~or lost~~ by requiring (within an existing wetland or a separate location), where practicable ~~possible~~: (1) an increase in the extent and quality of habitat for indigenous species, (2) the restoration of hydrological processes, (3) control of pest species and vegetation clearance, and (4) the exclusion of stock.	**LF–FW–P10 – Restoring natural wetlands** Improve the ecosystem health, hydrological functioning~~, water quality~~ and extent of natural wetlands that have been degraded or lost by requiring, to the greatest extent practicable ~~where possible~~: (1) an increase in the extent and ~~quality~~ condition of habitat for indigenous species, (2) the restoration of hydrological processes, (3) control of pest species and vegetation clearance, and (4) the exclusion of stock.	No further amendments required. Accept the analysis provided in paragraph [1478] of the s42A report.
FPI020.018 FSFPI020.008	**LF–FW–P15 – Stormwater and wastewater discharges** Minimise the adverse effects of direct and indirect discharges of stormwater and wastewater to fresh water by: (1) except as required by LF–VM–O2 and LF–VM–O4, preferring discharges of wastewater to land over discharges to water, unless adverse effects associated with a discharge to land are greater than a discharge to water, and (2) requiring: (a) all sewage, industrial or trade waste to be discharged into a reticulated wastewater system, where one is available, (b) all stormwater to be discharged into a reticulated system, where one is available, (c) implementation of methods to progressively reduce the frequency and volume of wet weather overflows and minimise the likelihood of dry weather overflows occurring for reticulated stormwater and wastewater systems, (d) on-site wastewater systems to be designed and operated in accordance with best practice standards,	Amend.	Submission: LF–FW–P15(2) fails to recognise that even if a reticulated system is available, it may not be appropriate for sewage, industrial or trade waste to be discharged into it – e.g., due to limits in the system capacity or for other reasons. Furthermore, RMA s105(1) (Matters relevant to certain applications) expressly requires consent authorities to consider alternatives in the case of applications for discharge permits. Some industrial sites have onsite land-based effluent discharge management systems that are self-contained and entirely appropriate to be used in lieu of adding more loading to reticulated systems. LF–FW–P15(2)(e) does not expressly provide for reasonable mixing of contaminants with receiving waters, as is provided for by RMA s107(1).	Amend to: › Enable discharges to be managed outside of the reticulated network if an alternative management method is environmentally neutral or positive compared to reliance on the reticulated network. › Clarify the reference to "water quality standards" for discharges in LF–FW–P15(2)(e). › Provide a management pathway for situations where industrial discharges to water are unavoidable.	**LF–FW–P15 – Stormwater ~~and wastewater~~ discharges** Minimise the adverse effects of direct and indirect discharges of stormwater ~~and wastewater~~ to fresh water by: ~~(1) except as required by LF–VM–O2 and LF–VM–O4, preferring discharges of wastewater to land over discharges to water, unless adverse effects associated with a discharge to land are greater than a discharge to water, and~~ (2) requiring: ~~(a) all sewage, industrial or trade waste to be discharged into a reticulated wastewater system, where one is available,~~ (ab) integrated catchment management plans for management of stormwater in urban areas, (b) all stormwater to be discharged into a reticulated system, where	No further amendments required. Accept the analysis provided in paragraph [1528] of the s42A report.

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	(e) stormwater and wastewater discharges to meet any applicable water quality standards set for FMUs and/or rohe, and (f) the use of water sensitive urban design techniques to avoid or mitigate the potential adverse effects of contaminants on receiving water bodies from the subdivision, use or development of land, wherever practicable, and (3) promoting the reticulation of stormwater and wastewater in urban areas.		Further submission: Silver Fern Farms agrees with OceanaGold's comments that the policy framework would benefit from amendments to recognise that there may be functional or locational constraints or other reasons of practicability as to why industrial discharges may be made to water, As recommended by OceanaGold Ltd, ensure the policy framework for discharges provides a management pathway for situations where industrial discharges to water are unavoidable.		one is made available, by the operator of the reticulated system, unless alternative treatment and disposal methods will result in improved outcomes for fresh water (c) implementation of methods to progressively reduce the frequency and volume of wet weather overflows ~~and minimise the likelihood of dry weather overflows occurring for reticulated stormwater and wastewater systems~~, ~~(d) on-site wastewater systems to be designed and operated in accordance with best practice standards,~~ (e) that any stormwater ~~and wastewater~~ discharges do not prevent water bodies from ~~to~~ meeting any applicable water quality standards set for FMUs and/or rohe, and (f) the use of water sensitive urban design techniques to avoid or mitigate the potential adverse effects of contaminants on receiving water bodies from the subdivision, use or development of land, wherever practicable, and (3) promoting the reticulation of stormwater and wastewater in urban areas.	
Nil.	See above LF-FW-P15.	Nil.	Nil.	Nil.	**LF-FW-P16 – Discharges containing animal effluent, sewage, and industrial and trade waste** Minimise the adverse effects of direct and indirect discharges containing animal effluent, sewage, and industrial and trade waste to fresh water by: (1) phasing out existing discharges containing sewage or industrial and trade waste directly to water to the greatest extent possible, (2) requiring: (a) new discharges containing sewage or industrial and trade waste to be to land, unless adverse effects associated with a discharge to land	Amend as follows: **LF-FW-P16 – Discharges containing animal effluent, sewage, and industrial and trade waste** Minimise the adverse effects of direct and indirect discharges containing animal effluent, sewage, and industrial and trade waste to fresh water by: (1) phasing out existing discharges containing sewage or industrial and trade waste directly to water to the greatest extent practicable ~~possible~~, (2) requiring: (a) new discharges containing sewage or industrial and trade waste to be to land, unless adverse effects associated with

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					are demonstrably greater than a discharge to fresh water, (b) discharges containing animal effluent to be to land, (c) that all discharges containing sewage or industrial and trade waste are discharged into a reticulated wastewater system, where one is made available by its owner, unless alternative treatment and disposal methods will result in improved outcomes for fresh water, (d) implementation of methods to progressively reduce the frequency and volume of wet weather overflows and minimise the likelihood of dry weather overflows occurring into reticulated wastewater systems, (e) on-site wastewater systems and animal effluent systems to be designed and operated in accordance with best practice standards, (f) that any discharges do not prevent water bodies from meeting any applicable water quality standards set for FMUs and/or rohe, (3) to the greatest extent practicable, requiring the reticulation of wastewater in urban areas, and (4) promoting source control as a method for reducing contaminants in discharges.	a discharge to land are demonstrably greater than a discharge to fresh water, (b) discharges containing animal effluent to be to land, (c) that all discharges containing sewage or industrial and trade waste are discharged into a reticulated wastewater system, where one is made available by its owner, unless alternative treatment and disposal methods will result in improved outcomes for fresh water, (d) implementation of methods to progressively reduce the frequency and volume of wet weather overflows and minimise the likelihood of dry weather overflows occurring into reticulated wastewater systems, (e) on-site wastewater systems and animal effluent systems to be designed and operated in accordance with the best practicable option~~standards~~, (f) that any discharges do not prevent water bodies from meeting any applicable water quality standards set for FMUs and/or rohe, (3) to the greatest extent practicable, requiring the reticulation of wastewater in urban areas, and (4) promoting source control as a method for reducing contaminants in discharges.
FPI020.019 FPI020.029 (appears to have been double-counted)	**LF–LS–P21 – Land use and fresh water** Achieve the improvement or maintenance of fresh water quantity or quality to meet environmental outcomes set for Freshwater Management Units and/or rohe by: (1) reducing direct and indirect discharges of contaminants to water from the use and development of land, and (2) managing land uses that may have adverse effects on the flow of water in surface water bodies or the recharge of groundwater.	Amend.	The unqualified requirement in subclause (1) to reduce discharge volumes fails to recognise that other methods may also "Achieve the improvement or maintenance of fresh water quantity or quality" as required by the policy chapeau and as contemplated by RMAs105(1) (Matters relevant to certain applications). The chapeau itself is unnecessarily verbose and as noted earlier with respect to LF-FW-P15, there is inconsistent reference between in policy references	**LF–LS–P21 – Land use and fresh water** ~~Achieve the improvement or maintenance of~~ Improve or maintain fresh water quantity or quality to meet environmental outcomes set for Freshwater Management Units and/or rohe by: (1) managing the adverse effects of ~~reducing~~ direct and indirect discharges of contaminants to water from the use and development of land, and	**LF–LS–P21 – Land use and fresh water** ~~Achieve the improvement or maintenance of~~ The health and well-being of water bodies is maintained or, if degraded, improved ~~quantity or quality~~ to meet environmental outcomes set for Freshwater Management Units and/or rohe by: (1) reducing or otherwise managing the adverse effects of direct and indirect discharges of contaminants to water from the use and development of land, ~~and~~	No further amendments required.

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			to "environmental outcomes" or "water quality standards".	*[Remainder of provision not shown here].*	(2) managing land uses that may have adverse effects on the flow of water in surface water bodies or the recharge of groundwater; and (3) maintaining or, where degraded, enhancing the habitat and biodiversity values of riparian margins.	
FPI020.020 FSFPI020.009 FSFPI020.010	**LF–FW–M6 – Regional plans** Otago Regional Council must publicly notify a Land and Water Regional Plan no later than 31 December 2023 and, after it is made operative, maintain that regional plan to: (1) identify the compulsory and, if relevant, other values for each Freshwater Management Unit, (2) state environmental outcomes as objectives in accordance with clause 3.9 of the NPSFM, (3) identify water bodies that are over-allocated in terms of either their water quality or quantity, (4) include environmental flow and level regimes for water bodies (including groundwater) that give effect to Te Mana o te Wai and provide for: (a) the behaviours of the water body including a base flow or level that provides for variability, (b) healthy and resilient mahika kai, (c) the needs of indigenous fauna, including taoka species, and aquatic species associated with the water body, (d) the hydrological connection with other water bodies, estuaries and coastal margins, (e) the traditional and contemporary relationship of Kāi Tahu to the water body, and (f) community drinking water supplies, and (5) include limits on resource use that: (a) differentiate between types of uses, including drinking water, and social, cultural and economic uses, in order to provide long-term certainty in relation to those uses of available water, (b) for water bodies that have been identified as over-allocated, provide methods and timeframes for phasing out that over-allocation, (c) control the effects of existing and potential future development on the ability of the water body to meet, or continue to meet, environmental outcomes,	Amend.	It is appropriate for LF–FW–M6(6) to anticipate future regional plan provisions that provide for off- stream water storage. Silver Fern Farms opposes subclauses 6(b), (7) and (8) to the extent that it has submitted in opposition to the PORPS provisions referenced in those sub-clauses and listed below: › LF–FW–M6(6)(b) refers to "the objectives and policies of the LF chapter of this RPS". › LF–FW–M6(7) refers to LF-FW-P7 and LF-FW-P9. › LF–FW–M6(8) refers to LF–FW– P15.	Retain LF–FW–M6(6). Make consequential amendments to the references in LF–FW–M6(6)(b), LF–FW–M6(7) and LF–FW–M6(8) to other LF-FW provisions in accordance with this submission. **FURTHER SUBMISSION POINT** Amend sub-clauses (4) and (5) as recommended by Horticulture New Zealand, as follows: **LF-FW-M6 Regional Plans** *[Entire provision not shown here]* (4) include environmental flow and level regimes for water bodies (including groundwater) that give effect to Te Mana o te Wai and provide for: *[…]* g. abstraction and discharges to support domestic food security, and (5) include limits on resource use that: a. differentiate between types of uses, including human health needs (such as drinking water and food security), and social, cultural and economic uses, in order to provide long-term certainty in relation to those uses of available water,	**LF-FW-M6 Regional Plans** Otago Regional Council must publicly notify a Land and Water Regional Plan no later than 30 June 2024~~31 December 2023~~ and, after it is made operative, maintain that regional plan to: (1A) implement the required steps in the NOF process in accordance with the NPSFM, ~~(1) identify the compulsory and, if relevant, other values for each Freshwater Management Unit,~~ ~~(2) state environmental outcomes as objectives in accordance with clause 3.9 of the NPSFM,~~ (3) identify water bodies that are over-allocated in terms of ~~either their water quality or quantity~~ and the methods and timeframes for phasing out that over-allocation (including through environmental flows and levels and limits) within the timeframes required to achieve the relevant freshwater vision, ~~(4) include environmental flow and level regimes for water bodies (including groundwater) that give effect to Te Mana o te Wai and provide for:~~ ~~(a) the behaviours of the water body including a base flow or level that provides for variability,~~ ~~(b) healthy and resilient mahika kai,~~ ~~(c) the needs of indigenous fauna, including taoka species, and aquatic species associated with the water body,~~ ~~(d) the hydrological connection with other water bodies, estuaries and coastal margins,~~	Correct the reference in (8) from policy LF-FW-P15A to LF-FW-P16, as follows: (8) manage the adverse effects of stormwater and discharges containing animal effluent, sewage, or industrial and trade waste in accordance with LF–FW–P15 and LF–FW–P16~~5A.~~

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	(d) manage the adverse effects on water bodies that can arise from the use and development of land, and (6) provide for the off-stream storage of surface water where storage will: (a) support Te Mana o te Wai, (b) give effect to the objectives and policies of the LF chapter of this RPS, and (c) not prevent a surface water body from achieving identified environmental outcomes and remaining within any limits on resource use, and (7) identify and manage natural wetlands in accordance with LF–FW–P7, LF–FW–P8 and LF–FW–P9 while recognising that some activities in and around natural wetlands are managed under the NESF, and (8) manage the adverse effects of stormwater and wastewater in accordance with LF–FW–P15.				~~(e) the traditional and contemporary relationship of Kāi Tahu to the water body, and~~ ~~(f) community drinking water supplies, and~~ (5A) provide for the allocation and use of fresh water in accordance with LF-FW-P7A, ~~(5) include limits on resource use that:~~ ~~(a) differentiate between types of uses, including drinking water, and social, cultural and economic uses, in order to provide long-term certainty in relation to those uses of available water,~~ ~~(b) for water bodies that have been identified as over-allocated, provide methods and timeframes for phasing out that over-allocation,~~ ~~(c) control the effects of existing and potential future development on the ability of the water body to meet, or continue to meet, environmental outcomes,~~ ~~(d) manage the adverse effects on water bodies that can arise from the use and development of land, and~~ ~~(6) 0provide for the off-stream storage of surface water where storage will:~~ ~~(a) support Te Mana o te Wai,~~ ~~(b) give effect to the objectives and policies of the LF chapter of this RPS, and~~ ~~(c) not prevent a surface water body from achieving identified environmental outcomes and remaining within any limits on resource use, and~~ (7) identify and manage natural wetlands in accordance with LF–FW–P7, ~~LF–FW–P8 and~~ LF–FW–P9 and LF-FW-P10 while recognising that some activities in and around natural wetlands are managed under the NESF and the NESPF, and (8) manage the adverse effects of stormwater and ~~wastewater~~ discharges containing animal effluent, sewage, or	

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					industrial and trade waste in accordance with LF–FW–P15 and LF–FW–P15A.	
FPI020.021	**LF–FW–M7 – District plans** Territorial authorities must prepare or amend and maintain their district plans no later than 31 December 2026 to: (1) map outstanding water bodies and identify their outstanding and significant values using the information gathered by Otago Regional Council in LF–FW–M5, and (2) include provisions to avoid the adverse effects of activities on the significant and outstanding values of outstanding water bodies, (3) require, wherever practicable, the adoption of water sensitive urban design techniques when managing the subdivision, use or development of land, and (4) reduce the adverse effects of stormwater discharges by managing the subdivision, use and development of land to: (a) minimise the peak volume of stormwater needing off-site disposal and the load of contaminants carried by it, (b) minimise adverse effects on fresh water and coastal water as the ultimate receiving environments, and the capacity of the stormwater network, (c) encourage on-site storage of rainfall to detain peak stormwater flows, and (d) promote the use of permeable surfaces.	Amend.	The requirement at LF-FW-M7(2) to avoid all adverse effects on "the significant and outstanding values of outstanding water bodies" appears to go beyond the requirement at RMA s6b for "the protection of outstanding natural features and landscapes from inappropriate subdivision, use, and development".	**LF–FW–M7 – District plans** Territorial authorities must prepare or amend and maintain their district plans no later than 31 December 2026 to: (1) map outstanding water bodies and identify their outstanding and significant values using the information gathered by Otago Regional Council in LF–FW–M5, and (2) include provisions to protect the values of outstanding water bodies from the adverse effects of inappropriate ~~avoid the adverse effects of~~ activities ~~on the significant and outstanding values of outstanding water bodies~~, *[Remainder of provision not shown here].*	**LF–FW–M7 – District plans** Territorial authorities must prepare or amend and maintain their district plans no later than 31 December 2026 to: (1) map outstanding water bodies and identify their outstanding and significant values using the information gathered by Otago Regional Council in LF–FW–M5, and (2) include provisions to ~~avoid the adverse effects of activities on~~ protect the significant and outstanding values of outstanding water bodies, (2A) include provisions to preserve the natural character of lakes and rivers and their margins from the adverse effects of land use and development and activities on the surface of water, *[remainder retained as notified]*	No further amendments required. Accept the analysis provided in [1631] of the s42A report.
FPI020.022 FSFPI020.004	**LF-FW-E3 – Explanation** *(paragraph 2)* The outcomes sought for natural wetlands are implemented by requiring identification, protection and restoration. The first two policies reflect the requirements of the NPSFM for identification and protection but apply that direction to all natural wetlands, rather than only inland natural wetlands (those outside the coastal marine area) as the NPSFM directs. This reflects the views of takata whenua and the community that fresh and coastal water, including wetlands, should be managed holistically and in a consistent way. While the NPSFM requires promotion of the restoration of natural inland wetlands, the policies in this section take a stronger stance, requiring improvement where natural wetlands have been degraded or lost. This is because of the importance of restoration to Kāi Tahu and in recognition of the historic loss of wetlands in Otago.	Amend.	Submission LF-FW-E3 clearly identifies that the PORPS goes beyond the requirements of the NPSFM. As explained in relation to LF–FW–O9 – Natural wetlands (for example), PORPS provisions that are more onerous than the already highly restrictive NPSFM will likely prove highly problematic for many projects with adverse consequences for activities that would promote economic, social, cultural and/or environmental benefits. Further submission Silver Fern Farms agrees with Dairy NZ that the reference in this provision to improving characteristics of wetlands that have been "lost" should be deleted as a consequential amendment arising from the concerns about policy LF-FW-P10 -	Amend the explanation along with other provisions, to ensure the PORPS gives effect to and accords with, the higher-order NPSFM - as required by RMA s61(1)(da) and s62(3). Delete "*or lost*" from this explanation.	**LF-~~VM~~FW-E2~~3~~ – Explanation** *(paragraph 2)* […] The outcomes sought for natural wetlands are implemented by requiring identification, protection and restoration. The first two policies reflect the requirements of the NPSFM for identification and protection but apply that direction to all natural wetlands, rather than only inland natural wetlands (those outside the coastal marine area) as the NPSFM directs. This reflects the views of ~~takata~~ mana whenua and the community that fresh and coastal water, including wetlands, should be managed holistically and in a consistent way. While the NPSFM requires promotion of the restoration of natural inland wetlands, the policies in this section take a stronger stance, requiring improvement where natural wetlands have been degraded or lost. This is because of the importance of restoration to Kāi Tahu	No further amendments required. Accept the analysis provided in [1661] of the s42A report.

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			that a requirement to restore historic wetlands that are "lost" (i.e., no longer extant) will be problematic for numerous reasons.		and in recognition of the historic loss of wetlands in Otago and the indigenous biodiversity and hydrological values of wetland systems.	
FPI020.023	**LF–FW–AER7** Water in Otago's aquifers is suitable for human consumption, unless that water is naturally unsuitable for consumption.	Oppose.	AER7 assumes that all aquifers are used for human drinking water supply. It would appear to require improved water quality in aquifers that are not used for drinking water supply. It is unclear what opportunity costs to the community might arise from restoring aquifer quality for the sake of it, rather than to resolve a pressing resource management issue.	Delete AER7.	Deleted.	No further amendments required. Accept the analysis provided in [1690] of the s42A report.
FPI020.024	**LF–FW–AER8** Where water is not degraded, there is no reduction in water quality.	Amend.	AER8 does not contemplate reductions in water quality that remain within an appropriate quality band/range. It also overlooks that reduced water quality might arise as a result of natural processes like floods or landslides.	**LF–FW–AER8** Where water is not degraded, there is no reduction (as a result of consented activities) in water quality below any specified environmental outcomes or limits relevant to the waterbody.	Retain as notified.	No further amendments required. Accept the analysis provided in paragraph [1691] of the s42A report.
FPI020.025	**LF–FW–AER9** The frequency of wastewater overflows is reduced.	Support.	It is appropriate for the PORPS to seek to reduce the frequency of wastewater overflows.	Retain as notified.	**LF–FW–AER9** Direct discharges of wastewater to water are phased out to the greatest extent practicable and the ~~The~~ frequency of wastewater overflows is reduced.	No further amendments required. The recommended amendment is a necessary result of amendments in LF-FW-O1A and LF-FW-P16.
FPI020.026	**LF–FW–AER10** The quality of stormwater discharges from existing urban areas is improved.	Support.	It is appropriate for PORPS to seek improved stormwater discharge quality.	Retain as notified.	Retain as notified.	No further amendments required. Accept the analysis provided in paragraph [1693] of the s42A report.
FPI020.027	**LF–FW–AER11** There is no reduction in the extent or quality of Otago's natural wetlands.	Oppose.	The phrase "no reduction" implies no scope for adverse effects. This does not reflect the direction of the NPSFM, the consenting pathways for activities in/near natural wetlands in the NESF, nor allow for activities that would produce a net gain in natural wetland extent or values.	Delete this AER.	**LF–FW–AER11** There is an improvement ~~no reduction~~ in the extent or condition ~~quality~~ of Otago's natural wetlands.	No further amendments required. Accept the analysis provided in paragraph [1694] of the s42A report.
FSFPI020.028	**LF–LS–P18 – Soil erosion** Minimise soil erosion, and the associated risk of sedimentation in water bodies, resulting from land use activities by: (1) implementing effective management practices to retain topsoil in-situ and minimise the potential for soil to be discharged to water bodies, including by controlling the timing, duration, scale and location of soil exposure, (2) maintaining vegetative cover on erosion-prone land, and (3) promoting activities that enhance soil retention.	Amend.	This policy provides flexibility and an outcome-focussed approach towards soil erosion. A minor amendment is recommended to reflect that works on erosion-prone land may necessitate vegetation clearance that is subsequently to be established.	**LF–LS–P18 – Soil erosion** Minimise soil erosion, and the associated risk of sedimentation in water bodies, resulting from land use activities by: [...] (2) maintaining, or re-establishing, vegetative cover on erosion-prone land, and *[Remainder of provision not shown here].*	**LF-LS-P18 – Soil erosion** Minimise soil erosion, and the associated risk of sedimentation in water bodies, resulting from land use activities by: (2) maintaining vegetative cover on erosion-prone land, and (1) where vegetation removal is necessary or there is no vegetative cover, implementing effective management practices to retain topsoil in-situ and minimise the potential for soil to be discharged to water bodies, including	No further amendments required. Accept the analysis at [1728] of the s42A report. (The need to re-number the sub-clauses is noted in the s42A report at [1725]).

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					by controlling the timing, duration, scale and location of soil exposure, and (3) promoting activities that enhance soil retention.	
FSFPI020.006	Meridian Energy FPI016.018: Insert a new LF-FW policy as follows: *Provide for the off-stream storage of surface water where storage will give effect to the objectives and policies of this RPS*	Support.	Silver Fern Farms would support provision for development of water storage infrastructure in the RPS, given recognition of this as 'specified infrastructure' in the NPSFM and the likely need for such infrastructure development to ensure water use is optimised.	Insert a new LF-FW policy as recommended by Meridian NZ Ltd: *Provide for the off-stream storage of surface water where storage will give effect to the objectives and policies of this RPS*		No further amendments required. Accept the analysis at [1557] of the s42A report in respect of policy recognition of water storage in the new policy *LF-FW-P7A Water allocation and use.*