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PART 1 – INTRODUCTION AND GENERAL PROVISIONS

Summary of key points

1. My evidence generally supports the D-G's submissions, but with some changes and updates as a result of considering the s42A Report and evidence of other witnesses for the D-G.
2. This evidence needs to be read in conjunction with the relevant parts of my evidence on the Non-Freshwater parts of the pORPS 2021, dated 23 November 2022, as provided to the Panel in the memorandum of counsel for the D-G dated 28 June 2023. The provisions in the Freshwater part are particularly focussed on water quantity and quality. However, in my opinion these provisions are best viewed as parameters which contribute to wider RPS and freshwater objectives, rather than as discrete matters in their own right. To a large degree, the relevant ultimate objectives sit in the Non-Freshwater parts of the pORPS 2021, and relate to indigenous biodiversity, cultural values, natural character etc.
3. At the Non-Freshwater hearing I raised concern about a lack of integration across the various domains and issues covered in the pORPS 2021, and this applies equally to the Freshwater parts. This is particularly an issue for biodiversity issues, which are addressed in different and disconnected ways across the Freshwater and Non-Freshwater provisions.
4. Otago is home to two-thirds of New Zealand's threatened species of non-diadromous galaxiids, with many of these found only in Otago. Most of these species are still in decline, and the activities which threaten them are all within the ambit of the pORPS 2021. I therefore consider that specific recognition and policy direction is required to address these threats and reduce the risk of loss of populations or species.
5. The s42A Report recommends significant changes to the Freshwater Visions. I support the approach taken and most of the changes, but there are a number of areas where I recommend further changes. I consider that for the pORPS 2021 to be effective, timeframes to achieve Freshwater Visions should be no later than 2040.
6. I support the recommendation in the s42A Report to include all estuarine areas and enclosed shallow inlets within FMU mapping, and recommend an additional provision to address this.

Introduction

1. My full name is Murray John Brass.
2. I have been asked by the Director-General of Conservation / *Tumuaki Ahurei* ('the D-G') to provide planning evidence on the proposed Otago Regional Policy Statement 2021 ('pORPS 2021').
3. I have already provided evidence (dated 23 November 2022) on the 'Non-Freshwater parts' of the pORPS 2021. This evidence now relates to the Freshwater parts, so for the sake of simplicity, all references to the pORPS 2021 should be taken as referring to the Freshwater parts. Where I have needed to make reference to the 'Non-Freshwater parts' of the pORPS 2021, this is specifically noted in those parts of my evidence.

Qualifications and experience

4. I am employed by the Department of Conservation (DOC) in Dunedin as a Senior RMA Planner. I have worked for DOC since 2019.
5. Prior to this I have over twenty years' experience in resource management, including senior and management roles in both consenting and plan development. This includes eight years as a Consents Officer and Senior Consents Officer at the Taranaki then Otago Regional Councils, nine years as Planning and Environment Manager at the Clutha District Council, and four years as Resource Planner / Policy Advisor at the University of Otago.
6. My experience relevant to the current process includes:
 - (a) Eight years' experience of processing the full range of consents for regional councils, including as reporting officer for non-notified and notified applications, and as senior officer at hearings. Of this experience, a total of four years was in the Otago region. Many of those consents related to freshwater takes and discharges.
 - (b) Also during my time in regional councils, providing staff input into the development of those councils' regional policy statements and regional plans.
 - (c) Nine years' experience managing the overall planning function for the Clutha District Council, including consent processing, plan changes, council processes, and monitoring and reporting.

- (e) Providing input from a local government perspective to the Ministry for the Environment in the development of various national direction documents. Through Local Government New Zealand and the New Zealand Planning Institute I have also provided input into various Quality Planning guidance notes.
 - (f) In my role with DOC, providing planning input into policy statement, plan and consent processes around the country, including preparation of submissions, appearance at hearings, expert witness conferencing and mediation.
 - (g) Presenting planning evidence at Environment Court hearings, including on Plan Changes 7 and 8 to the Otago Regional Plan: Water, which along with the pORPS 2021 are part of ORC's moves to develop a 'fit for purpose' freshwater planning framework.
7. I hold a Bachelor of Science degree (Geology, 1984) and a Diploma for Graduates (Ecology / Environment, 1991), both from the University of Otago.
 8. I am a Full Member of the New Zealand Planning Institute.

Code of Conduct

9. I confirm that I have read the code of conduct for expert witnesses as contained in the Chief Freshwater Commissioner and Freshwater Hearings Panels Practice and Procedures Note 2020. I have complied with the Practice Note when preparing my written statement of evidence and will do so when I give oral evidence before the hearing.
10. The data, information, facts, and assumptions I have considered in forming my opinions are set out in my evidence to follow. The reasons for the opinions expressed are also set out in the evidence to follow.
11. Unless I state otherwise, this evidence is within my sphere of expertise, and I have not omitted to consider material facts known to me that might alter or detract from the opinions that I express.

Scope of evidence

12. I have been asked to provide evidence in relation to the notified pORPS 2021, the D-G's submission (submitter number FPI044 dated 5 December 2022), the D-G's further

submission (FSFPI044 dated 3 February 2023), and further submissions lodged on the D-G's submission.

13. The first two sections of my evidence cover general matters:
 - Background
 - Statutory consideration
 - Non-diadromous galaxias species
14. The remaining sections follow the chapter structure of the pORPS 2021 for relevant chapters:
 - Land and Freshwater - Wai
 - Land and Freshwater - Fresh water
 - Land and Freshwater - Land and soil
 - Appendices and Maps
15. I have taken the following approach in my evidence:
 - For points which are minor or self-explanatory, I rely on the D-G's written submissions;
 - For points which are of moderate conservation importance but supported by the s42A report, I rely on the D-G's written submissions and the s42A report;
 - For points which are of moderate conservation importance but which are not supported by the s42A report, I provide brief evidence;
 - For points which are of high conservation importance, I cover them in evidence whether or not they are supported by the s42A report.
16. For points which I do not specifically address in evidence, I am still available to answer any questions which the Panel may have on those points.

Material Considered

17. In preparing my evidence I have relied on the evidence of Dr Nicholas Dunn, Mr Bruce McKinlay, and Dr Marine Richardson within their areas of expertise. I note that this includes the relevant parts of the evidence Mr McKinlay and Dr Richardson provided to the Non-Freshwater hearing.
18. I have read the following documents:

- Proposed Otago Regional Policy Statement 2021 ('pORPS 2021');
- The s32 Evaluation Report dated May 2021;
- The D-G's submission dated 5 December 2022;
- The D-G's further submissions dated 3 February 2023;
- Other submissions where they are referred to in my evidence;
- The s42A report dated 2 June 2023.

Background

19. The origins of the pORPS 2021 are covered in the s32 Report and summarised in Chapter 1: Introduction and Planning Context of the s42A Report, so I rely on those documents and do not repeat them here.
20. However, I note that the pORPS 2021 has been prepared under significant scrutiny and time pressures, and that this has been exacerbated by the need to separate out the Freshwater and Non-Freshwater provisions part-way through the process. I retain concerns about the lack of integration and consistency within and between the Freshwater and Non-Freshwater parts of the pORPS 2021. While this issue has been partly addressed in the Non-Freshwater hearing, I consider that further care will be required through the Freshwater process to ensure that the final result is a cohesive and effective document.

Statutory considerations

21. The s32 Report identifies the planning context, with the key section of the Report in that regard being Section 6.
22. In general I consider that the s32 Report correctly identifies the relevant planning context. However, since that report was prepared the National Policy Statement for Freshwater Management 2020 (NPSFM 2020) was amended in December 2022 (with further minor amendments in February 2023). The s42A Report addresses these changes in Section 3.1.3, and I support that assessment.
23. The s42A report (Section 3.1.3.10) also notes the recent introduction of the National Policy Statement for Highly Productive Land 2022, and concludes that no changes to

recommendations for the Freshwater parts of the pORPS 2021 are required as a result. I agree with that conclusion.

24. I consider that the key statutory consideration for the Freshwater parts of the pORPS 2021 is the NPSFM 2020. Although I agree with the general assessment of this document in the s42A report, there are areas where I have a different view about its implications for specific provisions of the pORPS 2021, and I address these where relevant in my evidence below.

Non-diadromous galaxias species

25. The evidence of Dr Richardson and Dr Dunn outlines the importance of non-diadromous galaxiids in Otago. I note in particular:
- Otago is home to 14 of New Zealand's 20 species of threatened non-diadromous galaxiids.
 - Three of those species are Nationally Critical (the highest threat ranking before extinction, the same category as the Kākāpō), and five species are Nationally Endangered (the second highest threat classification, the same as the Takahē). Notably in Dr Dunn's Table 1, the most highly threatened species are those which are endemic to Otago.
 - In addition, the south bank tributaries of the Waitaki River are home to the Nationally Critical Canterbury mudfish.
 - Those species mostly occupy small areas of total habitat, are fragmented into a small number of separate populations, and have population trends which are significantly declining.
26. In summary, Otago is an important, or the only, habitat for a high proportion of New Zealand's threatened galaxiid species.
27. Threats to these species include water abstraction, loss of habitat, disturbance of riverbeds, vegetation removal, gravel extraction, and changes to fish passage (including barriers to galaxiid passage, and creation of passage for salmonids into galaxiid habitat). These are all activities which sit squarely within the ambit of the pORPS 2021.
28. The NPSFM 2020 requires, at a high level, that the habitat of indigenous freshwater species is protected (Policy 9). More specifically, threatened species are identified as

a compulsory value that must be addressed through the implementation requirements of the National Objectives Framework (Part 3).

29. I therefore consider that protection of non-diadromous galaxiids and their habitat must be required of the pORPS 2021.
30. The changes to the pORPS recommended in the s42A Report would recognise non-diadromous galaxiids in descriptive text, but would result in there being no references to them in the actual provisions. Instead, protection of these species would rely on general provision such as LF-FW-O1A. I am concerned that such an approach fails to respond to the importance of non-diadromous galaxiids as an Otago-specific issue, and does not provide clear direction about managing the activities which threaten them.
31. I therefore consider that the pORPS 2021 needs to include provisions which specifically address galaxiids, and I address this in further detail below.
32. I note that Dr Dunn's evidence also addresses the importance of mapping and defining freshwater fish habitats. I agree with his evidence on this matter, and I consider that identification is a fundamental requirement for giving effect to NPSFM 2020 Policy 6 (extent and values of natural inland wetlands), Policy 7 (extent and values of rivers) Policy 9 (habitats of indigenous species). It is also specifically required under clause 3.8(3)(c) of the NPSFM 2020 ("*Every regional council must also identify the following (if present) within each FMU...the location of habitats of threatened species*"), which aligns with the inclusion of threatened species as a Compulsory Value in Appendix 1A of that document.
33. The notified version of the pORPS 2021 included a Method (FL-FW-M6(1)) to "identify the compulsory and, if relevant, other values for each Freshwater Management Unit:". The s42A Report recommends that that clause and other related provisions be deleted and replaced with an overall new method (LF-FW-Mg(1A)) "*Implement the required steps in the NOF process in accordance with the NPSFM*".
34. I am generally comfortable with the approach taken in LF-FW-M6(1A), but emphasise that mapping the habitats of threatened galaxiids will need to be an integral part of implementing that method.

Land and Freshwater Chapter - Wai

LF-WAI-O1 Te Mana o te Wai

35. The D-G's submission sought changes to recognise the interconnectedness of freshwater and coastal water, and to recognise that Te Mana o te Wai is a fundamental concept that applies to all those involved in freshwater management.
36. The s42A report has adopted the changes sought. I confirm that I support those changes.

LF-WAI-P1 Prioritisation

37. The D-G's submission raised concern that the policy was inconsistent with the s42A Report recommended version of Policy IM-P1 ('Integrated approach to decision-making'), and requested changes to this policy to ensure that priorities under the NPSFM would not be overridden by IM-P1.
38. The Reply Report for the Integrated Management Chapter (Non-Freshwater hearing) recommends substantial changes to IM-P1. The s42A Report for the Freshwater hearing recommends not accepting the D-G's submission on LF-WAI-P1.
39. I have reviewed the combined effect of the proposed changes to both IM-P1 and LF-WAI-P1. I consider that the change to LF-WAI-P1 sought by the D-G would still add some clarity, but agree with the s42A Report writer that it would largely become redundant if the Reply Report recommendations for IM-P1 are adopted.
40. However, it will be important for the Freshwater Panel to ensure that its decision on this provision aligns with the Non-freshwater Panel's decision on IM-P1. I therefore continue to support the D-G's requested change to LF-WAI-P1 should the aligned change not be made to IM-P1.

Land and Freshwater Chapter - Fresh Water

41. I note that the s42A Report recommends combining the LF-VM and LF-FW provisions into one chapter. My evidence follows that structure but retains the notified version of the numbering for provisions, as I understand that updating of numbering will be left to the end of the process so that all changes can be incorporated.

LF-VM-O2 to P6 Freshwater Visions overall - timeframes

42. As part of its request for an overall review of the Freshwater Visions structure and content, the D-G's submission sought that all Visions be amended to provide appropriate timeframes and staged targets.
43. The s42A Report considered a range of submissions on timeframes, which variously sought both increases and decreases, but did not recommend any changes. This was partly due to a lack of specific evidence.
44. The evidence of Dr Dunn and Dr Richardson outlines the current state of non-diadromous galaxiid species and populations in Otago, and the threats to them, and I have addressed this in more detail above. I consider that a key resource management conclusion to be drawn from that information is that action to address those threats is required in the near term. Mr McKinlay's evidence also addressed timeframes for threat classifications, noting that threat classifications are generally reviewed (i.e., can change) every ten years.
45. I also note that Otago is in a unique situation of having some hundreds of deemed permits (former mining privileges) which were due to expire in 2021 under the transitional provisions of the RMA, and have now been replaced under Plan Change 7 to the Regional Plan: Water for Otago. That plan change created a pathway whereby holders of deemed permits could gain a replacement consent for a six-year term as a controlled or restricted discretionary activity, with no affected parties and effectively a roll-over of existing conditions. As the deemed permits generally had no conditions to protect the environment, that situation will remain in place until 2028.
46. I consider it would be a reasonable expectation, based on my experience elsewhere and in Otago, that those next iterations of consents will be granted for terms in the order of 15 years, meaning that there will likely be a further wave of consent replacements around 2040-45. Given that, I consider that this iteration of the RPS needs to ensure that overallocation of water (SRMR-I5) and impacts on biodiversity (SRMR-I7) are addressed within the term of those consents rather than being left to the 2040-45 replacements.
47. Having considered both the risks to non-diadromous galaxiids and Otago's unique situation arising from deemed permits, I therefore conclude that timeframes for freshwater visions should be no longer than 2040.

48. I note that this is slightly shorter than the 2045 maximum sought in the Kāi Tahu ki Otago submission, but I consider it is generally consistent with their desire for visions to be achieved within a generation.
49. With regard to interim targets, the s42A Report considered that setting specific interim targets would be more appropriate at the regional plan level, but did recommend an addition to Method LF-FW-M6 requiring that interim milestones be identified in regional plans. I consider this is an appropriate approach, and support the recommendation.
50. However, I do not consider that this recommendation addresses my concern about the timeframe for achieving freshwater visions – there can be no certainty about how such interim milestones would be applied or implemented as they depend on a future process. Also, from my involvement in consultation on the coming Land and Water Regional Plan, it is clear that the Otago Regional Council does not have adequate information, nor sufficient time for full consultation, to enable a ‘fully worked’ water quantity and quality regime to be implemented in the new plan. This means that the Freshwater Visions are likely to remain a major driver of freshwater management until there have been further plan changes in the future.

LF-FW-O1A Region-wide objective for freshwater

51. The D-G’s submission sought that the Freshwater Visions be amended to provide a clear and consistent structure, and noted that this could include an overarching vision or visions. The D-G also supported submissions by other parties which sought specific region-wide visions.
52. The s42A Report agreed that there were inconsistencies in the structure and content of the proposed visions, and considered that a region-wide objective would assist with addressing that. The Report recommends a new Objective LF-FW-O1A ‘Region-wide objective for freshwater’.
53. The s42A Report usefully also assessed the recommended region-wide objective against the various FMU and rohe-specific visions, providing a review of consistency and alignment that was lacking from the s32 Report and notified provisions. As a result, region-wide issues from individual visions are recommended to be pulled through into the new objective, while FMU and rohe-specific issues remain in the individual visions.

54. I strongly support the review undertaken in the s42A Report and the recommended addition of a region-wide objective. This approach provides more confidence that relevant issues have been picked up for each FMU or rohe, and provides a clearer and more consistent structure.
55. Given my overall support, my evidence does not assess each provision individually. Where I do not comment on a particular provision either being pulled through to the region-wide objective, or remaining in a specific vision, then I generally support the approach recommended in the s42A Report.
56. I do question whether a better title for LF-FW-O1A would be “*region-wide objective vision for freshwater*”, to make it clear that it is relevant to the NOF process which flows from freshwater visions.
57. There are a number of provisions which I have specific comments on, and I address those below. This includes provisions which were included elsewhere in the notified version and which the s42A Report recommends be deleted on the basis that they would be covered by LF-FW-O1A (which includes all of LF-FW-O8).

Protection of galaxiid populations and habitat

58. The D-G’s submission on LF-FW-O8 (freshwater objective) sought that the following clause be added to that provision:
- “(x) non-diadromous galaxiid and Canterbury mudfish populations and their habitats are protected and restored.”*
59. The s42A Report recommends that LF-FW-O8 be deleted, on the basis that its contents are addressed in the recommended new region-wide objective LF-FW-O1A.
60. Although I generally agree with that approach, I am concerned that there is no specific recognition of the importance of non-diadromous galaxiids and Canterbury mudfish (see paras 25-34 above).
61. The approach in the s42A report is that the protection of these species and their habitats is adequately covered by the general provisions of LF-FW-O1A. In particular, this would rely on clause (1) “*freshwater ecosystems support healthy populations of indigenous species...*”.
62. However, in my opinion, although that clause is certainly appropriate, it largely repeats and operates at the same level as similar provisions in the NPSFM 2020. It would not direct any particular recognition of the importance of these threatened fish species, nor any particular response at the plan or consent level.

63. I therefore consider that the pORPS 2021 provisions should include express recognition of the need to protect these species and their habitats, and recommend an addition to LF-FW-O1A as per the D-G's submission.

Dryland environments

64. The D-G's submission sought that the following clause be added to the Freshwater Visions for the Dunstan, Manuherikia and Roxburgh rohe and the North Otago FMU:
- “(x) water and land management recognise the drylands nature of much of this [rohe/FMU] and the resulting low water availability”.*
65. The s42A Report considered that this matter was addressed in LF-FW-O1A and so did not need anything further.
66. However, my reading of LF-FW-O1A is that it does not address the specific dryland nature of parts of Otago, and instead would rely on general provisions relating to ecosystems and natural character.
67. I note the evidence of Mr McKinlay that Otago's drylands have significant biodiversity values (diversity, rarity and threatened species), and are already much reduced in extent and continuing to decline. In particular, I note that irrigation, cultivation and residential / lifestyle developments are causing ongoing loss and fragmentation.
68. I therefore consider that drylands are a feature of Otago which require specific recognition and protection in the pORPS 2021, and I recommend that the provision sought by the D-G be adopted.
69. In terms of the appropriate location for that provision, I agree with the s42A Report that this is an issue which sits best at the region-wide level, particularly given the proposed shift of the Waikōuaiti catchment from the North Otago FMU to the Dunedin and Coast FMU. I therefore recommend that drylands be addressed by adding the additional provision sought by the D-G to LF-FW-O1.

Urban development

70. The D-G's submission sought that the following clause be added to the Freshwater Visions for the Dunstan, Manuherikia and Roxburgh rohe and the Dunedin and Coast FMU:
- “(x) urban development is located and designed to protect and enhance gully heads, rivers, lakes, wetlands, springs and riparian margins”.*

71. The s42A Report considered that this was addressed in LF-FW-O1A and so did not need anything further.
72. However, my reading of LF-FW-O1A is that it does not address the specific effects of urban development on freshwater features, and instead would rely on general provisions relating to ecosystems and natural character. In particular, I do not consider that this adequately reflects the needs to recognise and respond to the presence of freshwater features at the time when urban development is being located and designed. There is a real risk that ecologically-focussed provisions will be given little regard at that early stage, so I consider that it would be more effective to include provisions which expressly apply to urban development.
73. I note that the proposed wording is derived from proposed RPS Change 1 for the Wellington Region, where this wording is included in proposed amendments to Policy 14, Policy FW.3, and Policy 42.
74. I agree with the s42A Report that this is an issue which sits best within a region-wide provision. I therefore recommend that the additional clause as originally sought be added to LF-FW-O1.

LF-VM-O2 Clutha / Mata-au vision

75. The D-G's submission sought the retention of this freshwater vision, subject to specific changes which I discuss below. However, the s42A Report has recommended the removal of one of the notified version clauses for the Dunstan, Manuherikia and Roxburgh rohe:

"...(7)(b)(iii) sustainable abstraction occurs from main stems or groundwater in preference to tributaries".
76. As outlined in the evidence of Dr Dunn, tributaries are of critical importance to the threatened non-diadromous galaxias species in Otago, and water flow is a key habitat requirement. While non-diadromous galaxiids are found in many parts of Otago, the maps provided by Dr Richardson and Dr Dunn make it clear that the Dunstan, Manuherikia and Roxburgh rohe are particularly important for them.
77. I also note that the original drafting used the term "in preference". I am comfortable that this would not result in an overly rigid or counter-productive approach. Preference is not an absolute term and would be implemented in the context of the rest of the

RPS, so if relocating a take to a main stem or groundwater was impractical or would lead to worse outcomes overall there would be scope to take a different approach.

78. I therefore consider that the notified provision should be reinstated.
79. The D-G's submission also requested that specific reference to the Kowarau Water Conservation Order be added to this Vision. The s42A report opposed this, on the basis that the Order applied anyway, and is referred to in policy LF-FW-P11.
80. S67(4) of the RMA requires that "*A regional plan must not be inconsistent with (a) a water conservation order.*". I consider that it would add clarity and certainty if this was specifically included in the relevant freshwater vision – it would provide express recognition of the need to avoid inconsistency within the pORPS 2021, and would also provide clear direction that the various NOF instruments that will flow from the freshwater vision must also not be inconsistent.
81. I have considered the effect of the reference to the WCO in LF-FW-P11. However, that policy simply states that the Kowarau River and tributaries described in the WCO are outstanding water bodies. While this is appropriate, it does not prevent inconsistency with the WCO, either within the pORPS or in lower order plans.
82. I therefore support the intent of the D-G's original submission. That submission requested an addition to clause (2), but the s42A report recommends that that clause be deleted as it would be covered by the new LF-FW-O1A. I therefore recommend that the following clause be added to LF-VM-O2:
- "(x) freshwater management avoids inconsistency with the Water Conservation (Kowarau) Order 1997."*
83. The D-G's submission also sought a further additional clause relating to resilience to flooding and the effects of climate change. The s42A Report considers that this has been addressed through the proposed LF-FW-O1A(7). I generally accept this, but note that the provision only specifically addresses resilience to climate change, so would not directly capture flooding which is not clearly attributable to climate change.

LF-VM-O4 Taiari vision

84. The D-G's submission sought recognition of the Taiari River's status as a Ngā Awa catchment. The s42A Report opposed that, on the basis that the Ngā Awa programme is but one of a number of catchment programmes, and sits outside the RMA.

85. Given that there are only 14 Ngā Awa rivers across all of New Zealand, I consider that recognising this in the pORPS 2020 would be appropriate. However, I take the point that there are other catchment programmes in Otago, and I am aware that the Otago Regional Council is working to further foster and support catchment programmes, so I would suggest that it may be more practical to recognise the various catchment programmes at the regional plan level.
86. The D-G's submission also sought to add a further clause relating to discharges from Lake Mahinerangi and the Loganburn. The s42A Report opposed that, on the basis that individual discharges should be managed at the regional plan level, not in a freshwater vision.
87. However, the discharges from Lake Mahinerangi and the Loganburn Reservoir are not discharges in the usual sense. They are the outlets of large dams which have significantly changed the hydrology of the catchments, and are significant drivers of the flows of the downstream catchments.
88. I therefore consider that these discharges do warrant management at the freshwater vision level, and recommend that a further clause be added to LF-VM-O4 as follows (noting that I suggest referring to the 'Loganburn Reservoir' in full):
- “(x) discharges from Lake Mahinerangi and the Loganburn Reservoir are managed to avoid adverse effects on downstream ecosystem function”.*
89. The s42A Report also points out that the notified version of clause (3) does not include 'protection' of the Waipōuri / Waiholā and Upper Taiari wetland complexes, and that no submissions have sought that the term be added. The Report considers that this must be an oversight, but questions whether there is scope to add the term at this stage.
90. I agree that the lack of specific reference to protection is an oversight, given the high values of these wetland complexes, and the requirements of the higher order documents particularly NPSFM 2020 Policy 6:
- “There is no further loss of extent of natural inland wetlands, their values are protected, and their restoration is promoted.”*
91. I consider that there is scope to address the drafting – the notified version of the clause opened with *“healthy wetlands are restored in...”*, and the s42A Report recommended version replaced that wording with *“..are restored or enhanced where they have been degraded or lost”*. In my view, the effect of the drafting of this clause

at a fine scale is that as soon as any degradation occurs to a wetland area then the restoration requirement sets in, which is equivalent to a requirement to protect.

92. I therefore consider that the term ‘restoration’ as used in this clause must include protection, and so it would be a consequential change to include the word protection. I also note that there can be no harm in making this clear, given that the NPSFM 2020 explicitly requires protection in any case. I suggest that suitable drafting (as an amendment to the s42A Report version) would be:

“(3) the upper and lower catchment wetland complexes, including the Waipōuri / Waihola wetland complex, Upper Taiari wetland complex, and connected tussock areas are protected, and restored or enhanced where they have been degraded or lost.”

LF-FW-O9 Natural wetlands

93. The D-G’s submission sought three changes to this policy:
- specific reference to ephemeral wetlands;
 - a change from “protecting or restoring” to “protecting and restoring”;
 - an additional clause to address mobile species.
94. The s42A Report considers that specific reference to ephemeral wetlands is not required, on the basis that the definition of “natural wetland” includes “intermittently wet areas” so already covers them.
95. Mr McKinlay’s evidence addresses the ecological importance of ephemeral wetlands. It is clear from that evidence that the pORPS 2021 needs to cover ephemeral wetlands. However, he raises a concern that the definition of inland wetland excludes wetlands within pasture used for grazing and with more than 50% exotic pasture species cover, unless the wetland is a habitat of threatened species identified under clause 3.8 of the NPSFM 2020. He notes that not all ephemeral wetlands will have such threatened species, meaning that some ephemeral wetlands will not be covered by the pORPS 2021 definition.
96. I also note that clause 3.8 of the NPSFM 2020 sets out a process to be followed. Until the Regional Council has undertaken that process and identified the locations of habitats of threatened species, the fact that threatened species are present ‘on the ground’ will have no effect. I also understand that ephemeral wetlands are often

small, and can contain threatened species which are not discernible for much of the year, so that identification under clause 3.8 is uncertain. The situation therefore is that the pORPS 2021 as currently drafted would not apply to

- ephemeral wetlands within pasture which do not contain threatened species; and
- ephemeral wetlands within pasture which do contain threatened species but have not been identified by the Regional Council under clause 3.8 of the NPSFM 2020.

97. I therefore agree with Mr McKinlay that specific reference to ephemeral wetlands is still required.
98. With regard to the term “protecting and/or restoring”, I agree with the s42A Report that Policy 6 of the NPSFM 2020 only requires that restoration be promoted, which does distinguish that from the outright requirement to protect. I also note that the structure of objective LF-FW-O9 is that protection or restoration are the options to be used to achieve the outcomes set out in clauses (1) to (4). I consider this means that the requirements of those outcomes will direct whether protection and/or restoration is required, so that councils or consent applicants would not be able to arbitrarily choose between protection and restoration. Given that, I am satisfied that this submission point does not need to be pursued further.
99. With regard to mobile species, although I consider there would be some additional value in specifically referring to them, I accept that they are covered by the general provisions of LF-FW-O9.
100. I do however have significant concern with another change to this objective recommended in the s42A Report, being the addition of the word ‘net’ to clause (2), i.e.:
- “there is no net decrease, and preferably an increase, in the range extent and diversity of indigenous ecosystem types and habitats in natural wetlands”*
101. Although the change is attributed to a submission point by Fulton Hogan, I have been unable to find a clear explanation of the reason for the change in the s42A Report.
102. I am unclear as to what the authority is for a change which would generally allow decreases in the extent and diversity of ecosystems and habitats in natural wetlands, when Policy 6 of the NPSFM 2020 requires that “*There is no further loss of extent of natural inland wetlands, their values are protected and their restoration is promoted*”.

103. My reading of this change is that it would allow loss of extent or diversity of ecosystem types and habitats provided there has been an offsetting improvement elsewhere in Otago (which need not have any connection with the activity causing the loss).
104. The 'net' approach would enable perverse outcomes whereby a consent applicant could justify a decrease of extent or diversity arising directly from their actions on the basis that there have been unrelated improvements elsewhere.
105. I therefore recommend that this change is not adopted.

LF-FW-P15 Stormwater discharges and LF-FW-P16 Discharges containing animal effluent, sewage, and industrial and trade waste

106. A number of submitters requested significant changes to the notified version of policy LF-FW-P15, which addressed both stormwater and wastewater discharges. As these discharges are very different in their nature, management and effects, the D-G and other parties sought that the policy be split up accordingly. The s42A Report has accepted that, and recommends that LF-FW-P15 addresses stormwater only, and a new LF-FW-P16 addresses wastewater.
107. I confirm that I support that change, as it provides much clearer policy direction, and appropriately recognises the differences between these types of discharges.
108. Splitting the policy has required significant restructuring and rewording. I have reviewed the new drafting recommended in the s42A Report, and I am generally comfortable with it. However, given the complexity of the changes I remain open to other drafting if other parties suggest any improvements.

LF-FW-M7 District plans

109. The D-G's submission sought an addition to this Method to cover natural character of lakes and rivers. The s42A Report (para 1632) recommends that this addition be made, and I support that recommendation.

Land and Freshwater Chapter – Land and Soil

LF-LS-P21 Land use and fresh water

110. The D-G's submission on this policy sought recognition of ecosystems and riparian margins. The s42A Report does not adopt the changes as sought, but does recommend other changes to the policy in response to the D-G's and other submissions.
111. I have reviewed the overall effect of the recommended changes. Although they do not give the degree of specificity regarding riparian margins sought in the D-G's submission, I acknowledge that the changes are also seeking to address a number of other submissions on the same provision. Given that, I am comfortable with the overall package of changes, and consider that they adequately address the concerns that were raised by the D-G.

LF-LS-M11 Regional plans

112. This method sets out matters that regional plans would be required to address. The D-G's submission on this method sought that it be revised to ensure that regional plans give effect to all relevant matters relating to land.
113. The s42A Report acknowledges that the D-G's submission on the Non-Freshwater elements of the LF-LS chapter would widen the range of matters within the scope of LF-LS-M11. The Report also notes that the Report writer's own recommendations in the s42A Report for the Non-Freshwater provisions would expand the scope of the chapter, but considers that these changes would not affect the Freshwater provisions.
114. Given that the ultimate content of the LF-LS chapter will depend on decisions in both the Freshwater and Non-Freshwater hearings, the s42A report characterises the scope of LF-LS-M11 as 'unresolved'. I agree with this assessment. I therefore do not recommend any changes to this method *at this stage*, but consider that the Panel should review this as part of the process of aligning the two hearing processes.
115. I note that the s42A Report does recommend one change to LF-LS-M11, to add a new clause 2A to "*enable the discharge of contaminants to land for pest control*". This is both a direct response to the D-G's submission seeking that LF-LS-M11 address matters relating to land, and also a consequential amendment for consistency with changes recommended to the Non-Freshwater provisions. I confirm that I support that

change (for further background, see paras 104-105 of my Evidence in Chief for the Non-Freshwater hearing, and also my speaking notes from the LF Chapter hearing).

Part 5 Appendices and Maps

Map 1

116. The D-G's submission sought changes to the mapping of FMU's to ensure a consistent approach to the coastal marine area to include all estuarine areas and enclosed shallow inlets. Evidence on the ecological importance of this has been provided by Mr McKinlay.
117. The s42A Report agrees with this submission, and recommends (para 1181) *"that the coastal boundaries of the FMUs and rohe should be redrawn to follow either mean high water springs or, where this crosses a water body, where the water in that water body meets the territorial sea."*
118. I agree with this recommendation. As noted in the s42A Report it would be consistent with the NPSFM 2020, and I also consider that it would give better effect to ki uta ki tai and integrated management.
119. However, the s42A Report does not provide redrawn maps to reflect this change. I understand that there is an issue for implementation, in that MAP1 within the pORPS 2021 is at a very large scale and low resolution. It has been prepared based on more detailed FMU maps which the Otago Regional Council is using (see for example the FMU-specific information provided at <https://www.orc.govt.nz/plans-policies-reports/land-and-water-regional-plan/find-your-area>), but is unable to reflect the detail in those maps.
120. I therefore consider that alternative relief may be appropriate. The detailed FMU maps will be finalised through the Land and Water Regional Plan process (which the Council is now consulting on), and it would be appropriate for the pORPS 2021 to set direction for those maps.
121. I suggest that one option would be an addition to LF-VM-P5, which sets out the FMUs and refers to MAP1, along the lines:
- "Coastal boundaries of the FMUs and rohe shall follow either mean high water springs or, where this crosses a water body, where the water in that water body meets the territorial sea"*.

122. Another option would be to include a similar provision in LF-FW-M6, which addresses freshwater methods in regional plans.



Murray Brass

DATED this 28th day of June 2023

Appendix 1 – Summary of changes recommended based on the D-G’s submission

This appendix summarises matters where I recommend changes to the wording of provisions where my opinion differs from what is proposed in the Section 42A Report incorporating Supplementary Evidence. The table outlines the D-G’s submission points and officer’s recommendations, and includes the text of my suggested changes. The table also provides references for the paragraphs of my evidence which address each point or recommendation.

Note: Where submission points from the D-G’s submission are recommended for acceptance in the s 42A Report incorporating Supplementary Evidence, and I concur with that recommendation, those submission points have not been included in this table.

Key to proposed changes to provisions

Text	Tracked Changes
Text from Proposed Amendments PORPS – S42A & Supplementary Evidence Version	Normal text
Text amendment proposed by D-G expert witnesses:	Strikethrough for deletions and <u>underline</u> for insertions

Sub Ref	D-G Submission	Recommendation in ORC planning evidence	Provision wording as recommended by M Brass	Evidence para ref
LF-WAI-P1 – Prioritisation FPI044.006	Oppose – seek addition to clarify interaction with IM-P1	Do not adopt change	If the changes recommended to IM-P1 in the Freshwater hearing Reply Report are not adopted, then insert the following additional clause or words to like effect: “(4) if there is a conflict between this policy and other	37-40

Sub Ref	D-G Submission	Recommendation in ORC planning evidence	Provision wording as recommended by M Brass	Evidence para ref
			<u>provisions in this RPS that cannot be resolved by the application of higher order documents, then this policy takes precedence over Policy IM-P1.”</u>	
LF-FW-O1A FPI044.007	Oppose - provide a consistent and clear structure across and between each FMU / rohe (which could include an over-arching vision or visions)	Accept, recommends new region-wide objective	Amend the title of the Objective as follows: “LF-FW-O1A – Region-wide objective <u>vision</u> for freshwater”	56
LF-FW-O1A FPI044.015	Submission point was originally on LF-FW-O8 – Oppose – seek protection of populations and habitats	Do not adopt change	Insert the following additional clause, or words to like effect: “ <u>(x) non-diadromous galaxiid and Canterbury mudfish populations and their habitats are protected and restored.</u> ”	58-63
LF-FW-O1A FPI044.009	Submission point was originally on LF-VM-O2, LF-VM-O3 – Oppose – add recognition of dryland nature	Do not adopt change	Insert the following additional clause, or words to like effect: “ <u>(x) water and land management recognise the drylands nature of much of Otago and the resulting low water availability.</u> ”	64-69
LF-FW-O1A FPI044.009	Submission point was originally on LF-VM-O2, LF-VM-O5 – Oppose – add recognition of freshwater features in urban development	Do not adopt change	Insert the following additional clause, or words to like effect: “ <u>(x) urban development is located and designed to protect and enhance gully heads, rivers, lakes, wetlands, springs and riparian margins</u> ”	70-74
LF-VM-O2	Retain clause 7(b)(iii) as notified	Recommends removal of clause	Re-insert the following clause, or words to like effect:	75-78

Sub Ref	D-G Submission	Recommendation in ORC planning evidence	Provision wording as recommended by M Brass	Evidence para ref
FPI044.001			<u>"...(7)(b)(iii) sustainable abstraction occurs from main stems or groundwater in preference to tributaries"</u>	
LF-VM-O2 FPI044.008	Oppose – add recognition of Kawarau WCO	Do not adopt change	Insert the following additional clause, or words to like effect: <u>"(x) freshwater management avoids inconsistency with the Water Conservation (Kawarau) Order 1997."</u>	79-82
LF-VM-O2 FPI044.007	Oppose – review timeframes	Do not adopt change	Amend clause (8) as follows: "(b) by 2045 <u>2040</u> in the Dunstan, Roxburgh and Lower Clutha rohe, and (c) by 2050 <u>2040</u> in the Manuherekia rohe."	42-50
LF-VM-O3 FPI044.007	Oppose – review timeframes	Do not adopt change	Amend the chapeau as follows: "By 2050 <u>2040</u> in the North Otago FMU..."	42-50
LF-VM-O4 FPI044.007	Oppose – review timeframes	Do not adopt change	Amend the chapeau as follows: "By 2050 <u>2040</u> in the Taiari FMU..."	42-50
LF-VM-O4 FPI044.011	Oppose – add recognition of Lake Mahinerangi and Loganburn discharges	Do not adopt change	Insert the following additional clause, or words to like effect: <u>"(x) discharges from Lake Mahinerangi and the Loganburn Reservoir are managed to avoid adverse effects on downstream ecosystem function"</u>	86-88
LF-VM-O4	N/A	Query raised about drafting not including the word 'protection' in clause (3)	Amend clause (3) as follows or words to like effect: "(3) the upper and lower catchment wetland complexes, including the Waipōuri / Waihola wetland complex, Upper Taiari wetland complex, and connected tussock areas are protected, and restored or enhanced where they have been degraded or lost"	89-92

Sub Ref	D-G Submission	Recommendation in ORC planning evidence	Provision wording as recommended by M Brass	Evidence para ref
LF-FW-O9 FPI044.016	Oppose – add specific recognition of ephemeral wetlands	Do not adopt change	Amend the chapeau of this provision as follows or words to like effect: “Otago’s natural wetlands, including ephemeral wetlands, are protected or restored so that...”	94-97
LF-FW-O9 FPI044.001	Retain clause (2) as notified	Change clause (2) to add the word ‘net’	Amend clause (2) as follows or words to like effect: “there is no net decrease, and preferably an increase, in the extent and diversity of indigenous ecosystem types and habitats in natural wetlands”	100-105
MAP1 FPI044.024	Oppose - Amend the coastal boundaries of FMUs to include all estuarine areas and enclosed shallow inlets	Accept change	Insert the following additional text to Policy LF-VM-P5: “ <u>Coastal boundaries of the FMUs and rohe shall follow either mean high water springs or, where this crosses a water body, where the water in that water body meets the territorial sea</u> ”.	116-122