Before the Freshwater Hearings Panel convened by the Chief Freshwater Commissioner

In the matter of the Proposed Otago Regional Policy Statement 2021

Statement of Evidence of Nigel Paragreen on behalf of Otago Fish and Game Council (#0321)

28 November 2022

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Qualifications and experience

1 My name is Nigel John Paragreen, I am the Environmental Officer with the Otago Fish and Game Council (**OFG**) in Dunedin. I have worked with OFG since January 2017, providing advice and services related to policy and planning. Much of my focus during this period has been on the deemed permit process.

2 I have a Master of Environmental Management, specialising in sustainable development, and a Bachelor of Economics, specialising in natural resources and the environment, both from the University of Queensland, Australia. I have worked on planning, natural resource management and conservation projects in Australia and New Zealand since 2013.

3 I draw on my experience working with the OFG since 2017. During this time, I have gained an in-depth understanding of the process and its issues. At times I touch on subjects outside my lived experience. For these subjects I rely on my general knowledge, published work and the relevant experiences of my colleagues, as communicated to me.

Code of conduct for expert witnesses

4 This evidence is presented as non-expert evidence and is intended to provide added context for the Otago and Central South Island Fish and Game councils (referred to collectively in this evidence as **Fish and Game**) expert evidence and to provide background information to the Hearings Panel.

Scope of evidence

5 I have been asked to prepare evidence by OFG and the Central South Island Fish and Game Council (**CSIFG**), in relation to:

(a) Providing a background on Fish and Game Councils,

(b) Broader trends around angling, hunting and the sports fish and game resource

(c) Key concepts relevant to Fish and Game's submission.

6 In preparing this statement I have reviewed:

(a) the section 32 report;

(b) the section 42A reports for chapters relevant to Fish and Game's submission, including supplementary briefs of evidence;

(c) the 21 October 2022 tracked changes version of the Proposed Otago Regional Policy Statement (**PORPS**);

(d) the evidence of Mr Cooper; and

(e) the evidence of Mr Farrell.

7 My evidence will address the following matters:

(a) Fish and Game Councils and their functions

(b) Sports Fish and Game Resources

(c) Relationships with introduced sports fish and game

(d) Angling, hunting experiences and the sports fish and game resource in Otago

(e) Sports Fish and Game Management Plans

(f) Fish and Game's focus on the protection and restoration of freshwater

(g) Difficulties associated with the Freshwater Planning Instrument

(h) Species interaction and provisions relating to trout and salmon habitat and fish passage

(i) Ecosystem health and introduced species – differing perspectives

(j) The natural environment, recreation and health

(k) APP1

Executive summary

8 Fish and Game is the statutory manager of sports fish and game birds in Otago. They are democratic organisations, operating in accordance with their respective Sports Fish and Game Management Plans (**SFGMP**). Fish and Game participates in this process as part of its statutory functions.

9 Since the 1970s, the approach taken by Fish and Game has become increasingly heavily influenced by a desire to protect and restore habitat and ecosystems. The organisations have been involved in a significant number of resource management processes as a result. Recent reporting from the Otago Fish and Game Council demonstrates that it spends up to half of its annual income in this endeavour.

10 Fish and Game's submission aligns with the organisations' desire to protect and restore habitat and ecosystems.

11 When considering ecosystem health within this wider goal, it is likely that different parties may be thinking of considerably different meanings for the concept.

12 Generally, the angling and hunting experience of the past few decades has been one of reducing water quality and fisheries in lowland catchments, with anglers who move to fisheries in Central Otago finding that they are, in many cases, already impacted by water abstraction.

13 There is a growing desire for action by Fish and Game to address instances of negative species interaction between sports fish and indigenous species. Fish and Game seeks the inclusion of a framework to require a proactive and collaborative approach to resolving species interaction. The proposed framework has been broadly agreed between the parties in Otago which hold statutory responsibility for the species involved.

14 There is a strong relationship between angling and hunting, or other immersive, water-based recreations, and human health. This is reflected in Central Government public health programmes, advice and national budgeting.

15 The criteria for considering outstanding water bodies should be carefully considered.

Fish and Game Councils and their functions

16 Fish and Game are the statutory manager of sports fish and game birds in the Otago and Central South Island Fish and Game regions respectively. Fish and Game Regions are legally defined in the Government Gazette.[1]

17 The **OFG** region includes the whole Clutha catchment, the Taieri catchment and many smaller coastal catchments between Shag Point and the Brothers Point on Otago's east coast. This area covers most of Otago Regional Council's (**ORC**) region except for some catchment areas in North Otago.

18 The CSIFG region includes the remainder of ORC's region including small coastal catchments in North Otago such as the Kakanui and Waianakarua, and the southwest bank of the Waitaki River and its tributaries from Kurow downstream to the sea. The bulk of CSIFG region is in Environment Canterbury region.

19 Fish and Game Councils are established under the Conservation Act and report annually to Parliament. Their activities are guided by statutory Sports Fish and Game Management Plans approved by the Minister of Conservation.

20 Fish and Game Councils' primary statutory function under section 26Q(1) of the Conservation Act 1987 (**Conservation Act**) is:

> *"… to manage, maintain, and enhance the sports fish and game resource in the recreational interests of anglers and hunters…"*

21 Functions and responsibilities are outlined in sections 26P to 26S of the Conservation Act, including section 26Q(1)(a) and (e) as follows:

> ***"26Q Functions of Fish and Game Councils***

[1] The New Zealand Gazette, issue No.87, pages 1930 to 1932.

(1) The functions of each Fish and Game Council shall be to manage, maintain, and

enhance the sports fish and game resource in the recreational interests of anglers and hunters, and, in particular,—

(a) to assess and monitor—

(i) sports fish and game populations; and

(ii) the success rate and degree of satisfaction of users of the sports fish and game resource; and

(iii) the condition and trend of ecosystems as habitats for sports fish and game

(e) in relation to planning,—

(i) to represent the interests and aspirations of anglers and hunters in the statutory planning process; and.....

(vii) to advocate the interests of the Council, including its interests in habitats:…"

22 The direction taken in achieving these functions is set by a democratically elected governance system. Governors are elected every three years from the pool of licence holders. Any person holding a full year licence may vote. The current Councils were elected in October 2021.

23 The independence of the democratically elected governance system is helped dramatically by the independence of Fish and Game's funding. Fish and Game is supported almost entirely by the sale of fishing and hunting licences. Unlike other environmental organisations or government departments that are reliant on government grants or taxpayer funding, this has meant that the organisations have enjoyed a degree of independence from political pressure of the day.

24 Combined, the democratic governance and independent funding systems have enabled Fish and Game to be an independent representative of anglers and hunters. A popular description for Fish and Game among anglers and hunters captures this sentiment:

User pays, user says.

25 As I will discuss later in my evidence, anglers and hunters have sent strong signals that they wish for Fish and Game to advocate for environmental protection and restoration. This has become a central part of the organisation and its workload.

26 For completeness, I must note here that Fish and Game Councils' governance system was reviewed in 2020 and 2021 by the Minister for Conservation. The review made key findings, including that the Councils had not properly given effect to the Treaty of Waitangi, as required by s4 of the Conservation Act 1987, nor had proper regard to adverse effects of sports fish and game on other users. Nationally, the Councils are working collectively to implement

recommendations from this review, some of which will require legislative changes. It continues to be a work in progress.

Sports Fish and Game Resources

27 "Sports fish" and “game”[2] have legal definitions and protection. Sports fish are defined in Schedule 1 of the Freshwater Fisheries Regulations 1983. They include brown and rainbow trout, brook char, chinook salmon and perch. Game are defined in Schedule 1 to the Wildlife Act and include introduced mallard duck and indigenous grey duck, shoveler duck, paradise shelduck and black swan.

28 Sports fish and game are wild and self-sustaining natural resources protected under the Conservation Act 1987 and Wildlife Act 1953 respectively. The quality and extent of sports fish and game populations is overwhelmingly dependant on the quality and extent of the habitat that supports them.[3] Healthy and resilient ecosystems tend to produce productive sports fish and game populations.

29 These three components – sports fish, game and their habitats – are referred to as the ‘sports fish and game resource’. They are publicly owned resources managed to provide recreational fishing and hunting for those people who choose to buy fishing and hunting licences. They are valued by many within communities apart from anglers and hunters as part of nature.

30 It is critical to note that Fish and Game has direct management control over sports fish and game populations, through population control or sustainable harvest, but has very limited control over habitat. For the latter, Fish and Game’s functions are largely restricted to advocacy within Resource Management Act (**RMA**) processes.

Relationships with introduced sports fish and game

31 Many sports fish and game species were introduced to New Zealand by early European settlers, and New Zealand’s relationship with these introduced species, particularly sports fish, is complex.

32 Trout are by far the most controversial of these species. They were introduced to Otago and elsewhere in New Zealand in the late 1860s to provide a sports fishing resource for public use and enjoyment. The results were spectacularly successful and New Zealand has become internationally renowned as a trout fishing destination. Trout and salmon still support New Zealand’s most economically and socially valuable freshwater fisheries, despite widespread degradation of freshwater ecosystems and sports fish habitats over the last few decades.

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[2] Often referred to as “game birds”, the legal description is simply “game”.

[3] The exception to this is stocked fisheries, supported by hatcheries. Fish and Game stock a small number of fisheries in Otago, focusing on dams and ponds which do hot host spawning activity. These stocked fisheries are generally close to urban populations.

33 Crucially, the failure to take a partnership approach with mana whenua was a significant omission of this early introduction and management programme. As will be discussed later in my evidence, the fractures caused by that failure are still evident today.

34 The introduction of sports fish has had adverse effects on indigenous aquatic flora and fauna, yet they remain a desirable introduced species. They are protected by law,[4] are promoted by the New Zealand tourist industry, and are actively sought by large numbers of anglers. The last National Angler Survey conducted, in 2014-2015 reported over 400,000 anglers (license sales) spending 1.274 million angling days of effort across New Zealand.[5]

35 Trout and salmon anglers, and other fishers (for example, whitebaiters and eel fishers) are one of the main groups or types of people that interact directly with freshwater.[6] Fishing directly connects the New Zealand public and international visitors with nature and our freshwater 'commons'.

36 So, despite their introduced status, and recognised ecological effects on indigenous fish species, sports fish, and the fisheries amenity they provide, are a legitimate and important value of Otago's and New Zealand's freshwaters resources.

Angling, hunting experiences and the sports fish and game resource in Otago

37 Angling and hunting opportunities in Otago are diverse. The region boasts large lakes and rivers which host a high level of angling activity; remote backcountry rivers which are spectacular yet pressure sensitive; and lowland rivers and wetlands which have historically been very productive but have borne the brunt of the impacts of land use intensification and have declined in popularity. Hunting opportunities for waterfowl are typically concentrated around lowland rivers and major wetlands but occur in most rural areas on smaller wetlands, farm dams and rivers.

38 As noted previously, Fish and Game does not have direct control over the broadscale quality and extent of habitat, which falls within the functions of councils.

39 In his evidence, Mr Couper outlines the state of Otago's water bodies and the stressors impacting upon them. He details a number of critical issues including:

(a) a high prevalence of water quality issues, particularly within lowland rohe and FMUs; and

[4] Conservation Act, section 26ZI.

[5] Unwin MJ 2016. *Angler usage of New Zealand lake and river fisheries: Results from the 2014/15 National Angling Survey*. Prepared for Fish and Game New Zealand. NIWA Client Report 2016021CH.

[6] Robb C, Bright J 2004. *Values and uses of water.* In: Harding et al. (ed). Freshwaters of New Zealand. NZ Hydrological & Limnological Societies.

(b) the depletion of many water bodies due to abstraction, often in already water short catchments within Central Otago rohe or FMUs.

These issues, the result of territorial authority plans, have created key trends for angling, hunting and the sports fish and game resource.

40 Historically healthy (and popular) lowland rivers, for example the lower Pomahaka, are suffering from increased sedimentation and other water quality issues,[7] leading to losses in productivity and ecosystem health. In many cases, this change in water quality has happened in the last few decades, with the increased prevalence of intensive land use – both rural and urban.

41 A corresponding general decline in angling use on lowland rivers due to the above has likely pushed anglers into higher altitude rivers, often into Central Otago.[8]

42 However, for over a century many rivers in Central Otago have been depleted due to water abstraction. This issue has been a concern of Fish and Game for over 30 years. A 1977 report from the Otago Acclimatisation Society, the predecessor to OFG, details increasing abstraction pressure in the Manuherekia catchment as a result of recent state funded irrigation scheme developments.[9] Similarly, in a letter to the ORC from February 1990, Mr Watson, the then manager of the Otago Acclimatisation Society, gave an overview of trout spawning streams which were adversely affected by mining privileges. The picture he paints is one of depleted and dewatered rivers creating high mortality for juveniles and placing stress on the fishery. A copy of this letter is provided in **Appendix A**.

43 Displaced anglers from lowland rivers moving into waterbodies in Central Otago will find many rivers and fisheries already under stress. This serves to condense users onto rivers and wetlands which still provide quality experiences, such as large lakes. Should the allocation issue be resolved, it could be expected that angling opportunities, as well as opportunities for other recreational users, would improve.

Sports Fish and Game Management Plans

44 The SFGMP have been prepared for the Otago and Central South Island regions, being approved by the Minister for Conservation in 2015 and 2021 respectively. Both are statutory plans under sections 61, 66 and 74 of the Resource Management Act and regional and district councils need to have regard to it in the development of regional and district policies and plans.

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[7] Trotter, Morgan. 2010. *A Review of the Pomahaka Fishery*. Council Report, Dunedin: The Otago Fish and Game Council.

[8] Unwin, M. J. (2012). *REC-based analyses of Fish & Game New Zealand angler survey data: an exploratory study*. Christchurch: NIWA.

[9] The Otago Acclimatisation Society. (1977). *Notes on Abstraction, Manuherekia*. Dunedin: The Otago Acclimatisation Society.

45 Fish and Game take an ecosystems approach to fisheries management activities because fish populations are wild and self-sustaining through natural spawning, rearing and recruitment of juveniles into adult populations. Healthy ecosystem functioning provides for a broad range of ecosystem components and intrinsic/amenity values and is highly valued within the plans.

46 For example, the Otago SFGMP, which notes[10]:

> *"...the protection, maintenance, management and enhancement of rivers streams lakes and wetlands as habitats and ecosystems is vitally important in the maintenance of fish and waterfowl resources. The maintenance and enhancement of water quality, water quantity, water flow and water level regimes, and natural characteristics (for example channel variability and riparian cover) are essential requirements."*

47 Similarly, when setting the intentions of the Central South Island SFGMP[11], the first expectation listed that licence holders can expect the Council to work towards is:

> *"The health and well-being of waterbodies and freshwater ecosystems in the CSI Fish and Game Region is realised and provides habitat for both indigenous species and sports fish and game bird species."*

48 Both of the SFGMPs embed this approach within their objectives and policies. The outcomes sought by each plan respectively in this area is telling of the approach:

> *"**6.1 Outcome**[12]*
>
> *Water quality ranges between good and excellent in Otago rivers, lakes and wetlands. River flows and lake or wetland water levels combine with the natural characteristics of waterways to support natural ecosystems functioning at a level that supports productive and diverse fish and game populations. Rivers are swimmable, fishable, and safe for food gathering. Otago's wetlands are improving in terms of quality, diversity and species productivity and the overall area of wetlands is expanding, underpinned by the regional focus on protection of regionally significant and other smaller wetlands, as well as an active programme of wetland creation on private land. Degraded headwater wetlands have been restored and contribute to maintenance of summer low flows in catchments downstream. Overall, rivers and wetlands are highly valued by the public for their intrinsic qualities and amenity values."*
>
> *"**9.1 Outcome**[13]*

[10] Sports Fish and Game Management Plan for Otago Fish and Game Region, 2015, Otago Fish and Game Council, page 34.

[11] Sports Fish and Game Management Plan for Central South Island Fish and Game Region, 2021, Central South Island Fish and Game Council, page 8.

[12] Sports Fish and Game Management Plan for Otago Fish and Game Region, 2015, Otago Fish and Game Council, page 35.

[13] Sports Fish and Game Management Plan for Central South Island Fish and Game Region, 2021, Central South Island Fish and Game Council, page 20.

Restore, manage, maintain and enhance sports fish and game bird habitat within the CSI Fish and Game Region so that:

- *Waterbodies support healthy ecosystems that sustain productive and diverse fish and game populations*
- *Spawning areas are identified and protected under section 26ZJA of the Conservation Act*
- *Waterbodies, from an environmental perspective, are safe for recreation and harvesting food*
- *Licence holders see the restoration and enhancement of degraded habitats and fisheries*
- *CSI Fish and Game wetlands are maintained and enhanced where appropriate to provide recreational opportunities and support the national and regional focus of protecting regionally significant wetlands*
- *Rivers and wetlands are highly valued by the public for their intrinsic qualities and amenity values"*

49 Within this, both SFGMPs identify and plan to address similar issues or take specific action, including:

(a) acting as an advocate or monitoring body to identify habitat condition or threats and protect or restore habitat and ecosystem health;[14]

(b) identify or recognise species interaction issues and work cooperatively to assist in the protecting of indigenous species.[15]

50 I note that this is not the only direction for both SFGMPs, with other key directions including regulation of angling and hunting activities; monitoring of populations to inform sustainable harvest; and ensuring compliance with regulations. It is however the most relevant to the PORPS and Fish and Game's participation in the associated processes.

Fish and Game's focus on the protection and restoration of freshwater

Environmental perspectives, actions and expenditure

51 Because of the entwined fates of the sports fish and game resource and the water bodies or ecosystems, which in many cases are all one and the same, anglers and hunters have become avid advocates for protecting and restoring freshwater bodies. Their experience in recent decades of degrading water quality and the failure to resolve water quantity issues by the 2021 deemed permit deadline has heightened the organisations' motivation.

[14] CSI SFGMP, 9.3.2, 9.3.1, 9.3.6,; Otago SFGMP, 5.4.2, 6.3.1 – 6.3.3, 6.4.1, 6.4.2, 6.4.5, 6.4.7, 6.4.8, 6.4.10, 6.4.12, 6.4.14, 6.4.15, 6.4.17 – 6.4.19.

[15] CSI SFGMP, 8.4.16, 9.3.8; Otago SFGMP, 5.4.1, 5.4.4, 5.4.8, 5.3.6, 5.3.7.

52 Fish and Game's dedication in this regard is well known, as exhibited by the following excerpt from the Environmental Defence Society's review of the conservation framework:[16]

> *"…all interviewees also highlighted the invaluable role that Fish and Game has played in seeking habitat protection, being "the strongest advocate for freshwater" and wetlands protection, noting that "Fish and Game is one of the major, if not the main voice for freshwater advocacy in New Zealand, actively pursuing water conservation orders and advocating in regional planning processes."*

53 OFG, and the acclimatisation society that proceeded it, has been heavily involved in policy, planning and legislative processes. This involves acting as an affected party in consents relating to freshwater, where the ORC has identified Fish and Game as affected, as well as larger processes.

54 Large processes that OFG and its proceeding acclimatisation society have been a part of include:[17]

(a) local water conservation notice applications on the Pomahaka River and Lake Tuakitoto;

(b) the Water Conservation Order application on the Matura river (which was within the Acclimatisation Society boundary at the time);

(c) the Upper Taieri channel improvement scheme consents;

(d) consenting processes for the Finegand freezing works;

(e) consenting processes for the lower Taieri sewage treatment plant;

(f) a hydroelectric generation dam consent on the Teviot River;

(g) the consenting process related to the Clyde dam empowering act;

(h) the enhancement of the Fraser River through the provision of a residual flow;

(i) consent processes related to the Murton tidal arm floodgate;

(j) supporting the 1990 Kawarau water conservation order and the 2013amendment to protect the Nevis;

(k) being involved in the development of the Regional Plan: Water for Otago and all Regional Policy Statements since the RMA came into being and all plan changes relating to freshwater resources since;

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[16] Koolen-Bourke, D., & Raewyn, P. (2021). *Conserving Nature: Conservation reform issues paper*. Auckland: Environmental Defence Society. Retrieved from https://eds.org.nz/wp-content/uploads/2021/12/Conserving-Nature-Report.pdf

[17] Niall Watson, personal communication, 23 November 2022

(l) included in the above, minimum flows for the following catchments:

(i) Waiwera

(ii) Pomohaka

(iii) Trotters Creek

(iv) Lindis

(v) Manuherekia

(m) consent processes for Lake Mahinerangi;

(n) Waikouaitai water abstraction consents; and

(o) Deemed permit processes, covering hundreds of deemed permits and resource consents as well as Plan Change 7 to the Regional Plan: Water for Otago.

55 As Mr Couper discusses in his evidence[18] the advocacy work undertaken by Fish and Game can provide benefits for a wider range of habitats and species; although, this is location specific.

56 At the macro scale, one of the most prominent examples of Fish and Game Council advocacy is the organisations' pursuit of Water Conservation Orders. Nationally there are fifteen Water Conservation Orders, ten of which were achieved by Fish and Game. Otago Fish and Game work was instrumental in securing protection using this mechanism for

(a) the Kawarau River and its tributaries for their outstanding amenity and intrinsic values; and

(b) later preventing damming and diversion in the Nevis River, via an amendment to the Kawarau River Water Conservation Order.

57 In addition to this, OFG invests directly in habitat rehabilitation projects. Current investment streams include:

(a) a partnership with Contact Energy to improve habitat in the lower Clutha as part of consent conditions for the Roxburgh Dam;

(b) a large-scale wetland restoration project at Takitakitoa on the lower Taieri;

(c) a habitat enhancement and research fund which invests all diversions collected from compliance action to on the ground projects; and

[18] Evidence of Mr Couper, paragraphs 122 - 126

(d) the direct purchase and/or management of wetlands around Otago.

58 OFG's expenditure illustrates its dedication.[19] Since 2019 (when records were altered to be easily comparable) the organisation has spent between 33% and 52% of total expenditure on habitat protection. This figure includes staff and discretionary spending included in the above two lists, all with the aim of protecting and restoring ecosystems. The next closest expenditures are species management, at 10% – 17% and user participation at 8% – 11%.

A focus on protection and restoration in the PORPS

59 As I have discussed previously the democratically set direction in the SFGMPs for the Otago region require action which could broadly be described as protecting and restoring water bodies and aquatic ecosystems. The perspectives, actions and expenditure I have discussed above reflect, and to a certain extent have shaped, that approach.

60 Similarly, Fish and Game's participation in the PORPS process is a continuation of the SFMGP direction. General relief from the Fish and Game submission is provided at its paragraph 37. Broadly, the relief sought falls into a small number of categories:

(a) relief aimed at protecting and restoring water bodies and freshwater ecosystems;

(b) within the above, relief to develop a framework to consider the habitat of trout and salmon; and

(c) relief to improve the readability and clarity of the PORPS.

Difficulties associated with the Freshwater Planning Instrument

61 Fish and Game's relief in terms of protection and restoration of water bodies and ecosystems, and that of ecosystem health, is informed by freshwater issues, of which Mr Cooper has provided an overview of in his evidence.

62 The PORPS hearing process is split into two, one involving a Freshwater Planning Instrument (**FPI**) for matters relating to freshwater and the other involving the remainder of the PORPS (**non-FPI**). When considering freshwater issues and their resolution, there is a considerable amount of overlap between the FPI and non-FPI provisions.

63 For example, the National Policy Statement for Freshwater Management 2020 (**NPS-FM**) is still relevant to the following provisions:

(a) Ecosystem health, a concept fundamental to the NPS-FM, is considered in the IM chapter, particularly at IM-O1 and IM-P4.

[19] Derived from OFG Statement of Service Performance reports, 2019 - 2022

(b) The IM chapter relates to freshwater decision making. It contains direction, such as achieving a healthy and resilient natural environment, that is directly relevant to the resolution of freshwater issues.[20] It also provides direction for the consideration of strategic approaches,[21] interconnections,[22] cumulative effects, best information,[23] cross boundary management,[24] considerations relating to climate change[25] and the development of plans.[26]

(c) The LF chapter includes direction specific to freshwater such as integrated management approach;[27] natural character:[28] outstanding water bodies;[29] an effects management hierarchy relating to natural wetlands and rivers;[30] soil;[31] access;[32] and land use change.[33]

(d) The ECO chapter includes direction relating to ecosystems and indigenous biodiversity,[34] of which Fish and Game is one statutory manager, and may occur both in and outside a freshwater context.

(e) The EIT chapter includes direction relating to infrastructure[35] and hydroelectric generation,[36] including within a freshwater context.

(f) The NFL chapter relates to outstanding and highly natural features and landscapes,[37] with APP1 providing specific direction on outstanding water bodies.

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[20] IM-O1, IM-O3, IM-P1, IM-P2, IM-P4

[21] IM-P4

[22] IM-P5

[23] IM-P6

[24] IM-P7

[25] IM-P10 – 12

[26] IM-M1

[27] LF-WAI-P3

[28] LF-FW-O10, LF-FW-P12, LF-FW-P13, LF-FW-P14

[29] LF-FW-P11, LF-FW-P12, LF-FW-M5

[30] LF-FW-P13A

[31] LF-LS-O11 – LF-O12, LF-LS-P16

[32] LF-LS-P22

[33] LF-LS-P120

[34] ECO-O1, ECO-O2, ECO-M8

[35] EIT-INF-O4

[36] EIT-EN-O2, EIT-EN-P1, EIT-EN-P2, EIT-EN-P4

[37] NFL-O1

64 When considering these issues, it is necessary to consider the freshwater issues and context. For this reason, Fish and Game is providing a near-full suite of freshwater evidence for the non-FPI process. Additional evidence as required will be provided for the FPI process, including further information on species interaction.

65 This ends up causing a duplication in the evidence required for each process. It is difficult to make decisions about whether evidence can be provided for one or the other hearing, as there are overlapping provisions for so many concepts. All this adds cost and complexity to parties.

66 I am concerned for the ability of parties who cannot afford legal counsel to effectively navigate this process. Input on the direction of resource management in Otago should not be restricted only to parties with the resources to hire experts to navigate this procedural complexity.

67 In addition, I am concerned about the ability of a split hearing process to deliver an integrated plan upon completion, given the significant overlap between the FPI and non-FPI provisions.

Species interaction and provisions relating to trout and salmon habitat and fish passage

68 Fish and Game manages both native and introduced species. For the introduced portion, their addition to New Zealand ecosystems has caused a range of changes, some of which are adverse. This is most notable for freshwater fish.

69 Mr Couper describes the key threats faced by indigenous fish, namely predation by introduced fish, habitat loss or degradation through modification of waterways, water abstraction, water quality deterioration, fish passage barriers, and predation by native taxa outside their range.[38] While there are many contributors to the threats faced by native aquatic species, it is undeniable that sports fish are one.

70 Unfortunately, work to resolve species interaction has been sparse (relative to the size of the problem and concern shown by the public) and uncoordinated between the parties with statutory authority to manage the species. The Treaty of Waitangi / te Tiriti o Waitangi, Conservation Act 1987 and the RMA convey statutory responsibilities on mana whenua, the ORC, Department of Conservation (**DoC**) and Fish and Game to manage the species involved in sports fish and native species interaction. The jumble of legislative responsibility in this area has made it notoriously difficult for action to be taken, despite good intentions. Where work has been undertaken, it has often been without a regional approach and relied largely upon the hard work of individuals for momentum and continuity.

71 For its part, Fish and Game's history on species interaction has been mixed. In many ways, it mirrors the slow transition of the country from a colonial to modern New Zealand. Fish and Game's approach to species interaction in Otago through the years has broadly fallen into three categories:

[38] Evidence of Mr Couper, paragraph 101 - 102

(a) In the late 19th century and in into the 20th century, many of the acclimatisation societies who preceded Fish and Game Councils were concerned about the impacts of native species on sports fish populations. They ran cull and bounty programs, targeting predators like eels and shags. As with the introduction of sports fish and game, it's unlikely that much of these activities were undertaken in consultation with iwi. The frustration felt by some about these programs is still apparent today.[39]

(b) Since the 1970's, Acclimatisation Societies and Fish and Game took a ecosystems-based approach, with the notion that if freshwater habitats are healthy and productive they will support good quality fisheries and game populations that sustain recreational harvest. In many cases, habitat protection efforts commonly benefit all species within freshwater ecosystems both native and introduced. The management of native species was undertaken primarily by DoC. Fish and Game was supportive of DoC activity in this area. The number of sites where intervention occurred to address species interaction was quite small.[40]

(c) In recent years, Fish and Game has still taken an ecosystem-based approach and has become increasingly proactive in addressing species interaction. This approach recognises a shared responsibility for freshwater habitats and fisheries among multiple parties with statutory interests. For example:

(i) In 2017 OFG agreed a Memorandum of Understanding with DoC on a range of matters including how to respond to fish species interaction issues. The essence of this agreement is a co-operative relationship

(ii) In 2020 OFG developed its own internal policy for responding to species interaction issues. This essentially directs staff to work with other people and organisations to work on species interaction issues.

(iii) In July 2020 ORC established a working group on aquatic species interactions aimed at management of threatened galaxiids in the Manuherekia. OFG participated in this group, alongside representatives from mana whenua, DcC, ORC and the Central Otago Environmental Society.

(iv) In 2022, the New Zealand Sports Fish and Game Council released a draft strategy document, identifying enhancing relationships between sports fish and indigenous species as a matter of priority.[41]

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[39] Holmes, R., Kitson, J., Tadaki, M., & McFarlane, K. (2021). *Diverse Perspectives on the Role of Trout in Aotearoa New Zealand's Biological Heritage*. Nelson: Cawthron Institute.

[40] N, Watson, Personal communication, 23 November 2022.

[41] November agenda of the New Zealand Fish and Game Council, https://fishandgame.org.nz/dmsdocument/2194

(v) In 2022, OFG updated an internal policy formal application process for authorisations and special permits to take aquatic species in certain circumstances.[42] This system will assist OFG to better keep track of management work related to species interaction.

(vi) Currently, Fish and Game is actively participating in three species interaction projects, at Tyre Gully, Thompsons Creek, School House Creek and the Kye Burn.

72 Consistent with Fish and Game's current priorities and SFGMPs, Fish and Game's submission seeks to include or amend provisions to protect the habitat of trout and salmon while creating a formal system for place-based interventions. A structured and coordinated approach is useful because:

(a) taking a region wide perspective allows for resources to be assigned priority based on need, so that the work can be triaged; and

(b) it allows input from the multiple parties with statutory responsibilities to the species involved.

73 It is my hope that a framework such as the one proposed would help to overcome some of the long-standing issues that have hampered species interaction work in the past, by incentivising the statutory parties to work cooperatively and generate a coordinated, region wide approach.

74 This system requires input from parties with legal or statutory responsibilities to the species involved - the ORC, mana whenua, the Department of Conservation and Fish and Game. However, none had been approached before the Fish and Game submission was made due to time constraints. In recognition of this, Fish and Game approached these parties for feedback on the proposed amendments and to discuss how it might be alternatively worded.

75 The Brief of supplementary evidence of Felicity Ann Boyd: introduction and general themes describes outcomes from the discussions, particularly that they:[43]

"… highlighted agreement amongst those parties that additional clarity on species management, and particularly the need for guidance on identifying areas where protecting the habitat of trout and salmon is either consistent or inconsistent with protecting the habitat of indigenous species, in line with Policies 9 and 10 of the NPSFM."

76 This aligns with my understanding of the positions the parties landed upon. There is broad agreement on the concept.

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[42] In accordance with the Conservation Act 2987, section 51L and the Freshwater Fisheries Regulations 1983, section 4A.

[43] Brief of Supplementary Evidence of Felicity Ann Boyd: Introduction and general themes, paragraph 28

77 Ms Boyd recommends the amendment of LF-FW-O8 and LF-FW-P7[44] and a new method for the LF-FW section.[45] This approach differs to the relief initially sought by Fish and Game, which would have seen new provisions and amendments relating to trout and salmon habitat, fish passage and species interaction being rooted in the ECO chapter, with references to those provisions throughout the PORPS.

78 Of Ms Boyd's recommended amendments and new method:

(a) The amendments to LF-FW-O8 and LF-FW-P7 simply direct the protection of the habitat of trout and salmon, including fish passage, where it is consistent with that of indigenous species.

(b) The method creates a framework whereby the parties with a statutory interest in the species involved can get together to cooperatively identify geographically where the direction above should be enacted. The outcomes of these discussions would be given particular regard when making decisions affecting species interaction.

79 As part of those discussions, Fish and Game agrees that amending LF-FW-O8 and LF-FW-P7 and adding new method LF-FW-Mx is the most appropriate way to incorporate its relief into the PORPS. The parties have not agreed on the exact wording and expect that those minor points will be debated during the hearing.

80 I note that there is some ambiguity as to whether these provisions are to be heard under the Freshwater Planning Process or non-Freshwater Planning Process hearing. Neither the method, nor amendments to the LF-FW-O8 and LF-FW-P7 as it was not included in the 21 October 2022 tracked changes version of the PORPS. Similarly, the method wasn't included in the list of Freshwater Planning Instrument components on the ORC website.[46] However, LF-FW-O8 and LF-FW-P7 are both identified as part of the FPI.

81 It does not make sense to consider parts of the framework in isolation, particularly as the species interaction framework directly relates to the protection of habitat for trout and salmon, which will be a consideration for setting limits in a freshwater context. Fish and Game has arranged to provide additional expert evidence on species interaction for the Freshwater Planning Process hearing.

Ecosystem health and introduced species – differing perspectives

82 The health of ecosystems or the natural environment is a key concept with the PORPS, featured prominently throughout the chapters both in provisions that are and are not part of the

[44] Section 42A report, Chapter 1: Introduction and general themes, para 294.

[45] Brief of Supplementary Evidence of Felicity Ann Boyd: Introduction and general themes, paragraphs 26-35.

[46] https://www.orc.govt.nz/plans-policies-reports/regional-plans-and-policies/otago-regional-policy-statements/freshwater-planning-instrument-parts-of-proposed-otago-regional-policy-statement-porps-2021

FPI. It is most prominent in the IM, CE and FW and chapters. The IM Chapter in particular imbeds the health of ecosystems and the natural environment (of which ecosystems are a component) as a central focus which the PORPS must achieve:

IM-O1 – Long term vision

The management of natural and physical resources ~~in Otago,~~[536] by and for the people of Otago, ~~including~~ in partnership with Kāi Tahu, ~~and as expressed in all resource management plans and decision making,~~ achieves a healthy~~,~~ and resilient~~, and safeguarded~~ natural ~~systems~~ environment, ~~and~~ including the ecosystem services ~~they offer~~ it provides, and supports the well-being of present and future generations~~,~~ (mō tātou, ā, mō kā uri ā muri ake nei).

IM-P4 – Setting a strategic approach to ecosystem health

Healthy and resilient ecosystems and ecosystem services are achieved by developing regional and district plans ~~through a planning framework~~ that:

(1) ~~protects~~ ~~having~~ have particular regard to ~~their~~ the intrinsic values of ecosystems,

(2) ~~takes~~ ~~taking~~ take a long-term strategic approach that recognises ~~changing environments~~ ~~and~~ ongoing environmental change, including the impacts of climate change,

(3) ~~recognises~~ ~~recognising~~ recognize and ~~provides~~ ~~providing~~ provide for ecosystem complexity and interconnections, and

(4) ~~anticipates~~ ~~anticipating~~ anticipate, or ~~responds~~ ~~responding~~ respond swiftly to, changes in activities, pressures, and trends.

83 However, what exactly is to be achieved by these provisions may mean different things to different people. Ecosystem health is often considered with respect to reference states, with a deviation from the reference state denoting changes in health. Reference states aligning with specific indicators can take a myriad of forms such as modelling pristine natural conditions, developing guideline values or requiring minimal disturbance.[47] The desired reference state that will achieve ecosystem health may change what action is required to be taken.

84 By way of example, recent research investigating perspectives to trout in Aotearoa suggests that the way people view the concept of ecosystem health with respect to introduced species can differ dramatically. Based off of in-depth interviews with 13 knowledge holders with scientific, Māori and fish management agency backgrounds, the authors identified three overlapping definitions of a healthy ecosystem:[48]

[47] Clapcott, J., Young, R., Sinner, J., Wilcox, M., Storey, R., Quinn, J., . . . Canning, A. (2018). *Freshwater biophysical ecosystem health framework*. Nelson: The Cawthron Instute. Retrieved from https://environment.govt.nz/assets/Publications/Files/freshwater-ecosystem-health-framework.pdf

[48] Tadaki, M., Holmes, R., Kitson, J., & McFarlane, K. (2022). *Understanding divergent perspectives on introduced trout in Aotearoa: a relational values approach*. Kōtuitui: New Zealand Journal of Social Sciences Online, 17(4), 461 - 478. doi:10.1080/1177083X.2021.2023198

(a) sustaining natural pre-human ecosystems, where health was *"defined by how closely species assemblages and ecological processes resemble the system before human arrival"*.

(b) sustaining valued species and processes; where *"…health was dependent on key system attributes being sustained, but those attributes may be prioritised according to a range of values (rather than just naturalness)"*; and

(c) sustaining human-environment relationships, where health was tied to *"the ability to access and enjoy the landscape and … to transfer knowledge intergenerationally"*;

85 The authors viewed these approaches as overlapping because, while they drive towards different outcomes, which were at times mutually exclusive, they shared commonalities. For example, trout could be a part of the second and third definitions of ecosystem health, to the *"extent that they are valued and do not disrupt other valued processes and species";* and provided that the benefits of their presence are *"accessible, distributed fairly and able to sustain cultural practices."* However, in a strictly natural pre-human definition, the presence of trout would always be a detractor on ecosystem health.

86 I consider that these same principles may be applied to any part of ecosystem health which is not endemic to Otago – species, human actions, or human structures, for example.

87 Considering the PORPS provisions as a whole, it is clear to me that the ecosystem health approach taken is most akin to a mix of sustaining valued species and processes and sustaining human-environment relationships. There are certainly elements of sustaining pre-human ecosystems; however, I find it unlikely that could ever be achieved fully.

88 With that said, I note that the ecosystem health compulsory value set out in the NPS-FM is inclusive of introduced species provided indigenous species are not unduly affected.

89 It seems logical to me that ecosystem health exists on a spectrum, bounded at each end by good and poor health with a range of different outcomes in between. Attribute tables in Appendices 2A and 2B in the NPS-FM are arranged in a similar manner, with prescriptive numeric attribute states often assigned a band within a scale, from A – D/E. Achieving ecosystem health, or the range of associated concepts, might well be a range of such outcomes within the spectrum, for example numeric outcomes in the A band for a given attribute.

90 In summary:

(a) When considering the PORPS direction on ecosystem health, or related concepts, it is important to acknowledge the multiple perspectives people may hold and how this impacts upon the interpretation of PORPS provisions.

(b) Depending on the perspective taken towards ecosystem health and the range of outcomes considered healthy, there can be a place for introduced species within healthy ecosystems in particular circumstances.

The natural environment, recreation and health

91 Policy IM-P1 of the PORPS (tracked changes version using supplementary s42A evidence, 21 October 2022) refers to *"the health needs of people"* as a first priority, alongside *"the life-supporting capacity and mauri of the natural environment"*. The caveat for the policy being that this prioritisation only applies when there is "…*a conflict between provisions that cannot be resolved by the application of higher order documents…".*

92 In the freshwater context, which Fish and Game is primarily concerned with, the NPS-FM single objective[49] prioritizes second, *"the health needs of people".*

93 Policy LF-WAI-P1 contains a similar second level prioritisation for *"…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)"*. I acknowledge that this provision is identified as part of the FPI.

94 These provisions are naturally of interest to Fish and Game, as human health is a consideration at multiple points in the fishing and hunting experience:

(a) Fundamentally, the act of angling and hunting involves interaction with water. This may involve wading into the water to cast, cross a water body or collect a shot bird; coming into incidental contact with water when handling gear, fish, game or dogs which have been in the water; or ingesting or inhaling water or water vapor resulting from splashes, wave action or boat spray. Anglers and hunters should feel confident they will not get sick when coming into contact with water in-situ.

(b) Similarly, anglers and hunters often drink the freshwater while recreating and eat their harvest and want to know that their food is safe. The conditions of the water and water body should not be degraded to the point of causing risks to human health when food from the water body is consumed. This may extend to washing and preparing food in the water body, such as gutting a recently caught fish. In water bodies with poor water quality, this is generally discouraged for fear of exposing the meat to harmful bacteria.

(c) Finally, the act of fishing and hunting brings health and well-being benefits in and of itself. Providing exercise and getting people out into nature. These have demonstrated physical and mental health benefits.

[49] NPS-FM 2020, 2.1(1)

95 The three provisions I've outlined above may be interpreted to incorporate of each of these human health considerations to varying degrees.

96 I take it as a given that the health needs of people arising from contact with water, drinking water and ingesting food caught or cleaned in water bodies would be interpreted as within the concept of the 'health needs of people'. The management direction in all three of the provisions is not limited to specific actions, outside of bracketed examples. It is obvious and logical to me that a basic health need is to avoid becoming sick wherever possible.

97 To what extent the act of hunting and fishing itself forms a part of the health needs of people will not doubt be more controversial. After all, a person can live for some time with a sedentary lifestyle with poor mental health.

98 However, there is clear evidence of the link between spending time in the natural environment, where angling and hunting take place, and health. A 2016 review of nature-based interventions for mental health care from the United Kingdom found that:[50]

> *"… there is therefore consensus that nature contributes to enhanced wellbeing, mental development and personal fulfilment. Natural, green environments are places to relax, escape and unwind from the daily stresses of modern life; places to socialise and be physically active, thus having a positive effect on our wellbeing"*

99 More recently, a Danish study[51] covering more than 900,000 people showed that:

> *"… children who grew up with the lowest levels of green space had up to 55% higher risk of developing a psychiatric disorder independent from effects of other known risk factors."*

100 Turning to New Zealand, public health programmes regularly deal to a need for an active lifestyle and to maintain positive mental health. I draw a direct link between public health programmes and the concept of the health needs of people, because it is tasked with providing health outcomes for the whole – for the people.

101 Manatū Hauora Ministry of Health (**MoH**) describes public health as:[52]

> *"Public health protects and promotes the health of populations rather than treating diseases, disorders and disabilities in individuals. It is the fence at the top of the cliff.*

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[50] Natural England. (2016). *A review of nature-based interventions for mental health care.* Worcester: Natural England. Retrieved from http://publications.naturalengland.org.uk/publication/451381961634611

[51] Engemann, K., Pedersen, C., Arge, L., Tsirogiannis, C., Mortensen, P., & Svenning, J.-C. (2019). *Residential green space in childhood is associated with lower risk of psychiatric disorders from adolescence into adulthood*. Proceedings of the National Academy of Sciences, 116(11), 5188 - 5193. Retrieved from https://www.pnas.org/doi/full/10.1073/pnas.1807504116

[52] https://www.health.govt.nz/our-work/public-health-workforce-development/about-public-health

Public health is about using evidence-based prevention and intervention strategies to help communities grow their own ability to address the issues that affect their population."

102 The 2021/2022 New Zealand Health Survey[53] provides an insight into public health for the country. It revealed that:

(a) roughly half of adults (51.9%) and children (43.5%) meet physical activity guidelines;

(b) there was an increase in the prevalence of obesity from 2019/2020 to 2020/2021 and, while the survey was not able to measure this statistic in 2021/2022, data from general practices suggest[54] that obesity rates did not increase that last year;[55] and

(c) one in nine adults (11.2%) and nearly one in four (23.6%) people aged 15 – 24 years experienced high or very high levels of psychological distress.

103 The MoH website lists targeted programmes that it is undertaking to address areas covered by the key results of the New Zealand Health Survey, including both obesity and mental health.[56]

104 Numerous resources or initiatives are listed which *"…encourage healthy eating, physical activity and adequate sleep"*, including programmes designed to get people out and living active lifestyles. Within this topic, the website also provides guides for specific activities. This includes water activities, which are specifically recommended to *"… help a person to achieve the physical activity recommendations for New Zealanders."*[57] Rivers and lakes are cited as excellent places to undertake water activities, including fishing.[58]

105 To assist in addressing mental health, the government has developed its strategy: Kia Manawanui Aotearoa: Long-term pathway to mental wellbeing.[59] This is to implement specific recommendations from He Ara Oranga the report of the Government Inquiry into Mental Health

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[53] https://www.health.govt.nz/publication/annual-update-key-results-2021-22-new-zealand-health-survey

[54] The citation is clear that this statistic *"…is not a replacement for NZHS obesity statistics because of known differences in who uses services and gets measured. However, across the years, general practice data show trends in obesity across population subgroups that are broadly similar to those in the NZHS*."

[55] Ministry of Health. (2022). Obesity in 2021/22: *An experimental analysis*. Wellington: Ministry of Health. Retrieved from https://www.health.govt.nz/system/files/documents/publications/obesity_in_2021-22_16nov.pdf

[56] https://www.health.govt.nz/nz-health-statistics/national-collections-and-surveys/surveys/new-zealand-health-survey/improving-health-new-zealanders#obesity

[57] https://www.health.govt.nz/your-health/healthy-living/food-activity-and-sleep/physical-activity/activity-guides/water-activities

[58] Ibid.

[59] Ministry of Health. (2021). *Kia Manawanui Aotearoa: Long-term pathway to mental wellbeing*. Wellington: Ministry of Health. Retrieved from https://www.health.govt.nz/system/files/documents/publications/web3-kia-manawanui-aotearoa-v9_0.pdf

and Addiction.[60] The strategy represents a *"concerted focus on ensuring a seamless system that supports people to stay mentally well".*[61] It is critical to note that the strategy proports to be a systemic shift in health system's response to mental health and addiction, *"from treating illness to community-based supports and a focus on mental health."*[62] The phrase 'well-being' is commonly used in the document as a fundamental aspect of mental health.

106 The strategy takes a population-based approach, aiming to create conditions that support and improve mental health and well-being for the whole population while ensuring tailored support is available to those who need it.

107 There are 5 principles underlying the strategy, each with a focus area and outcomes, which underpin this approach. The natural environment contributes to the principle with the widest application to the population: *"All people in New Zealand have access to resources and live in healthy environments that support mental wellbeing".*

108 The outcome for this principle relevant to the natural environment is:

> ***"Outcome: Whānau and communities have access to resources and live in healthy environments that support mental wellbeing***
>
> *This area recognises the wider ecosystem of social, cultural, environmental and economic conditions that affect individual and whānau wellbeing. We aim for a future where all people have sufficient income and adequate housing, employment, education and the other core resources necessary for wellbeing. In this vision, the natural environment sustains wellbeing, and people live and work in supportive environments, including in terms of cultural connections and recreational opportunities."* (My emphasis added with underline)

109 What this strategy demonstrates is that the public health system's approach to mental health and addiction incorporates the natural environment at its core. Kia Manawanui Aotearoa draws a direct relationship between the quality of the environment we live within, mental well-being and the public health approach to addressing mental health and addiction.

110 This strategy is not the only place such a connection is made by Central Government. The Treasury has embedded a wellbeing approach within the budget, aiming to put *"… the wellbeing of current and future generations of New Zealanders at the heart of everything we*

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[60] Government Inquiry into Mental Health and Addiction. (2018). *He ara oranga: Report of the government inquiry into mental health and addiction*. Wellington: Government Inquiry into Mental Health and Addiction. Retrieved from https://www.mentalhealth.inquiry.govt.nz/inquiry-report/

[61] Ibid. pg 4

[62] Ibid, pg 6.

do".[63] To achieve this, a Living Standards Framework (**LSF**) was developed in 2018, and expanded in 2021, to inform the wellbeing budget.

111 The LSF recognises that *"the natural environment supports our wellbeing directly in many ways, such as through providing clean air, recreational opportunities, and the ability to perform mahinga kai or otherwise gather wild foods."*[64] It also considers the natural environment as part of the wealth of the country, providing ecosystem services that support human wellbeing, such as cultural services supporting recreation.[65]

112 The LSF recognises links between wellbeing; mental and physical health; and exercise. Health is described as *"arguably the single most important aspect of our wellbeing"* and that *"being in good mental and physical health and exhibiting health-related behaviours and lifestyles that reduce morbidity and mortality such as eating well and keeping active."*

113 Looking towards the individual perception of outdoor recreation, there is evidence of a link between health and recreation. A recent DoC lead study showed the most given reasons for spending time outdoors were mental health / wellbeing and mindfulness.[66]

114 A recent OFG study of anglers that were new to; or recently returning to the sport showed that anglers follow the same patterns as the generalised outdoor recreation participants. The survey found the most common reasons for fishing were *"enjoying nature / getting outside"*, *"escaping everyday stress"* and *"enjoying time with friends/ family"*. While important, values associated with the fishery such as *"catching big fish"* or *"harvesting big fish"* were ranked lower than the social and mental health justifications.[67]

115 Exercise intensity in both hunting and fishing can be varied to an individual's fitness levels which makes it suitable for a huge range of people. For example, in terms of angling opportunities:

(a) Fishing along large rivers or lakes with gentle sloping and open shores and provide relaxed opportunities for anglers without the need to walk long distances. This is perfect for young families or older anglers.

(b) Backcountry fishing involves accessing remote areas that are often difficult to get to. This can involve long day or multi-day hikes to get to the fishing spot, with the fishing itself

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[63] Te Tai Ōhanga The Treasury. (2020). *Wellbeing budget 2020: Rebuilding together*. Wellington: Te Tai Ōhanga The Treasury. Retrieved from https://www.treasury.govt.nz/sites/default/files/2020-05/b20-wellbeing-budget.pdf

[64] Te Tai Ōhanga The Treasury. (2021). *The living standards framework 2021*. Wellington: Te Tai Ōhanga The Treasury. Retrieved from https://www.treasury.govt.nz/sites/default/files/2021-10/tp-living-standards-framework-2021.pdf

[65] Ibid, pg 53

[66] Department of Conservation. (2020). *New Zealanders in the outdoors: Domestic customer segmentation research*. Wellington: Department of Conservation. Retrieved from https://www.doc.govt.nz/globalassets/documents/about-doc/role/visitor-research/new-zealanders-in-the-outdoors.pdf

[67] Fish and Game - B Quirey 2021 – A presentation on New and Reactivated Anglers

consisting of walking additional distance – potentially kilometers – upstream in search of fish.

116 Ultimately, angling and hunting are just one form of activities which people can undertake to provide for their physical and mental health needs. In my view, the health needs of people will be best provided for when there is a range of such opportunities.

117 Overall, it is clear to me that the approach to physical and mental health in New Zealand fundamentally incorporates the natural environment and opportunities for physical exercise, often using the language of well-being. This is supported by the experiences of people undertaking outdoor recreation, including angling and hunting. These reasons form the basis of my conclusion that contribution of angling and hunting activities form part of the health needs of the people, in the context of IM-O1, the NPS-FM Objective and LF-WAI-P1.

118 Finally, I note that

(a) IM-O1 takes an approach similar to what I have described, in that a healthy and resilient natural environment "…*supports the well-being of present and future generations…".*

(b) LF-WAI-P1 specifically includes the well-being needs of people alongside their health needs. Everything that I have described as an aspect of human health can similarly be applied to the concept of human well-being. As stated earlier in this section, LF-WAI-P1 is identified as part of the FPI.

APP1

119 While Fish and Game supports the expansion of criteria, it is apparent that criteria developed for the Hawkes Bay region are not directly applicable to Otago (for example it does not reference salmon adequately, or white bait at all). Fish and Game would be concerned to see application of APP1 in its current form.

120 The evidence Fish and Game has prepared is intended to be as constructive as possible, and Fish and Game consider that this important matter might benefit from the parties working together on the provisions. However, not all parties may have had this opportunity.

121 There has been considerable ambiguity among parties as to whether APP1 was to be considered by the Freshwater Commission, due to the blue shading of the table itself.

122 Other key recreational groups are not submitters (such as rafters, kayakers and jetboaters) and will have had no input into the detailed criteria tabled through the section 42A report.

123 There is little evidential basis for the requirement for a prescribed number of criteria in certain lists all being required to be met. It is not clear that there is strict precedent in any case law that would support such a prescriptive approach.

124 Related to Fish and Game's general theme about the importance of access to outdoor recreation for the benefit of people's health and wellbeing, Fish and Game consider the criteria are not inclusive enough generally of why water bodies and specific places are important to people. I note that Mr Couper discusses how the ways that people connect with water bodies can be more than it's biophysical components.

125 In addition to the observations of Mr Couper about APP1 as it relates to angling habitat and angling amenity, I make the following observations:

(a) The relationship between the angling amenity references of the “habitat for trout and salmon” value and the ‘angling amenity’ value are not clear and could form a duplication.

(b) For ‘angling Amenity’ list A reads as though only one water body in Otago could ever satisfy points (a) or (b) which would make no sense given the wide range of water fisheries in lakes and rivers of different sizes - “highest number of trout” is not a useful criteria.

(c) Within list B criteria (b), I am unclear how “specialised high quality angling experience“ would be interpreted in practice. It should not be restricted to “expert” or other specialised anglers, and should include the capacity for the experiences for popular, non-expert or novice anglers.

(d) The mandatory criteria in list C may exclude outstanding angling amenity experiences, such as ones which include hatchery bread fish, or could be impacted by changes to access conditions, which can be secured in the short to medium term but rarely guaranteed into perpetuity when private landholdings are involved

(e) In respect of criteria (b) and reference to “accessible” water bodies, this would undermine the importance of the difficult to access but extremely highly valued remote back country fisheries.

(f) In respect of criteria (c), Fish and Game would not support reference to high usage, as again Otago’s remote fisheries are important partly because of that experience of remoteness, and they are managed to protect that. Fish and Game do have excellent information on the regional, national and international significance of fisheries.

Appendix A – Correspondence on waterways affected by deemed permits

The Otago Acclimatisation Society

P.O. BOX 76 35 HOPE STREET DUNEDIN NEW ZEALAND TELEPHONE 779-076
FAX 770-146

19 February 1990.

Mr Bryan Bang,
General Manager,
Otago Regional Council,
Private Bag,
Dunedin.

Dear Mr Bang,

Mining Privileges and Water Allocation

The Otago Acclimatisation Society fully supports the Government's move to phase out the use of mining privileges for water allocation through the Resource Management Bill, but we question the rationale for a 30 year phase out period. We have had direct experience of the adverse impacts of the use of these water rights on instream values within Otago and we believe that the proposed phase out time is far too long. In our view five years is an appropriate figure. This will allow the new legislation to be put into practice quite quickly.

Freshwater sports fisheries management centres on maintaining stocks of wild trout and salmon. This in turn depends on protecting the aquatic ecosystem and all the individual components of it. Thus the maintenance of healthy fish stocks depends on an approach to water management which protects the integrity of aquatic ecosystems.

The operation of mining privileges prevents this in some cases and has a severe adverse impact on aquatic life in a number of important trout spawning and rearing streams in Otago. Appendix 1 lists these streams, their values and the impact of mining privileges. In many cases streams are totally dewatered during the irrigation season each year, with a consequent loss of fish life in the affected stream reach. This occurrence regularly results in an angry response from members of the public over the stranding or loss of large numbers of juvenile trout. In other streams where dewatering is not complete, flows are severely depleted causing problems to aquatic life through high water temperatures.

The continued existence of mining privileges also places an unreasonable constraint on water management and planning. Apart from the small streams listed in Appendix 1 the upper reaches of the Taieri River offer a good example of the sort of problems encountered.

A minimum flow has been negotiated and included as a condition on the Combined Maniototo Power & Irrigation Scheme water rights. This sets a minimum flow of 0.85 m^3/sec at the upper end of the Maniototo plain. However there are several mining privileges in existence over the river reach immediately downstream which authorise the taking of 1.26 m^3/sec. Thus the maintenance of the minimum flow is totally dependent on the operation of the mining privileges.

Mining privileges also prevent water managers from making general decisions on minimum flows, and water allocation according to the most beneficial or the most efficient consumptive use. For example, the extension of the east side of the Maniototo Irrigation Scheme could be expected to result in a rationalisation of water use in the Sowburn, but the existence of mining privileges is a serious impediment to this.

The Irrigation Schemes Bill also includes provisions for a 30 year phase out period on mining privileges associated with irrigation schemes, including dams. At the very least this will reduce flexibility in water management in those catchments where there are schemes operated by privileges. Attached for your information is a copy of the Society's submission on the Bill.

The Society believes that the Otago Regional Council (ORC) should be put into the best possible position to manage the region's water resources. A five year phase out period for mining privileges will be of considerable help in this respect. The use of mining privileges for water allocation is very much an Otago problem, and we expect that the ORC submission to Government will carry considerable weight in deciding the phase out period finally passed into law We are also aware that ORC will come under pressure from privilege holders to support or even extend the 30 year phase out period,. but we believe the ORC members must put fair and sensible water resource allocation and management ahead of political expediency - that you must start Otago's resource management as you mean to continue.

A lengthy phase out period is simply not compatible with the proposal for statutory water management planning. In effect the Bill is proposing that either this problem be passed on to the next generation.or that the region be required to pay compensation. We feel strongly that this latter issue should remain the responsibility of central Government .

We strongly recommend ORC included a 5 year phase out period for mining privileges in their Resource Management Bill submission.

Yours faithfully,

Niall Watson,
Manager.