Developing a freshwater management framework for the Dunedin & Coast FMU

STAGE 1 COMMUNITY CONSULTATION - OVERVIEW REPORT OF FEEDBACK RECEIVED (APRIL 2022)

1.Introduction

1.1 Purpose of this report

This report summarises the results from the first stage of community consultation undertaken to develop a planning framework for managing freshwater in the Dunedin & Coast FMU.

1.2 Regulatory context

In 2019, Otago Regional Council (ORC) committed to develop and notify a new Land and Water Regional Plan (LWRP), that gives effect to the National Policy Statement for Freshwater Management 2020 (NPSFM) by 31 December 2023. ¹

Under the NPSFM regional councils are required to identify Freshwater Management Units (FMUs) for the region at an appropriate spatial scale for freshwater management. Each FMU must reflect the unique circumstances of each region, as these circumstances will dictate what freshwater objectives and limits will be set within the FMU.² Five FMUs have been identified for the Otago region, these are: Clutha Mata-au, Taieri, North Otago, Dunedin & Coast and Catlins. The Clutha Mata-au FMU has been further subdivided into five rohe. A map showing the boundaries of the Dunedin & Coast FMU are shown in Appendix 3.

Under the NPSFM regional councils are also required to identify values related to freshwater applying to an FMU or part of an FMU. Regional councils must develop environmental outcomes for each of these values and set these as objectives in a plan. Attributes must then be identified for each value, along with baseline and target attribute states and environmental flows/levels and limits designed to support the achievement of the environmental outcomes.³ These environmental outcomes and limits must be developed through engagement with the community and active involvement of takata whenua regarding their values and aspirations.⁴

The NPSFM has identified 4 compulsory values that apply to every FMU and 9 other values that must also be considered as applying to an FMU or part of an FMU.⁵ Other values identified by the community are also to be considered.⁶ Appendices 2A and 2B of the NPSFM list attributes that need to be managed, e.g. total nitrogen is an example of a relevant attribute.

By undertaking this community consultation process, ORC is meeting its obligation to engage with communities under Clause 3.7 (National Objectives Framework process) of the NPSFM.

The process will also assist ORC with fulfilling its statutory requirements under Clause 3 of Schedule 1 of the RMA, including ensuring that consultation is undertaken in accordance with the principles set out in section 82 of the Local Government Act 2002.

¹ NPSFM 2020 https://environment.govt.nz/publications/national-policy-statement-for-freshwater-management-2020/.

² NPSFM Clauses 1.4 and 3.8(1).

³ NPSFM Subpart 2 National Objectives Framework.

⁴ While environmental outcomes (and target attribute states, environmental flows/levels and limits) set in the new LWRP need to be developed through engagement with the community and active involvement of takata whenua, the outcomes achieved must also meet the national bottom lines set in the NPSFM, achieve the objective of the NPSFM and fulfil the relevant long-term visions set in the regional policy statement.

⁵ NPSFM Clause 3.9(1), Appendix 1A Ecosystem Health, Human contact, Threatened species, and Mahinga kai, and NPSFM Appendix 1B Natural form and character, Drinking water supply, Wai tapu, Transport and tauranga waka, Fishing, Hydro-electric power generation, Animal drinking water, Irrigation, cultivation, and production of food and beverages, and Commercial and industrial use

⁶ NPSFM Clause 3.9 (2)

2. Consultation

2.1 Purpose

The purpose of the consultation was firstly, to gain an understanding of what characteristics for each value matter to the community, secondly, whether the community thought those characteristics are currently being provided for, thirdly, to identify locations of each value on a map, and lastly, to identify any characteristics or values that were not identified.

This feedback will be used to identify all the values that are important to the community, while also helping to inform the setting of environmental outcomes for each value and the identification of attributes for assessing the achievement of these outcomes.

During consultation participants were asked to comment on characteristics of a value instead of attributes, as this allowed them to provide feedback in simple plain terms on easy-to-understand concepts. Attributes (as referred to in the NPSFM) are a representation of these characteristics in more technical terms, allowing the condition or state of this value to be assessed in objective and, where practicable, numeric terms. Examples of characteristics for the value of swimming include water clarity and risk of getting sick. Attributes that correspond to these characteristics are suspended fine sediment and *Escherichia Coli (E. coli)*.

2.2 Methodology

2.2.1 Community meetings online

On Monday 14 March 2022 two online community meetings were held, one at 12pm and one at 7pm. Participants were presented with an overview of the LWRP development process, and the Proposed Regional Policy Statement for Otago (pORPS) long-term vision for the Dunedin & Coast FMU. This was followed by a demonstration of the online survey and mapping tool. Staff initiated conversations about visions, values, and desired environmental outcomes for the area at various points throughout the presentation.

Paper copies of the survey were made available for people without internet access wanting to participate in the survey.

2.2.2 Online and paper survey

From 14 March 2022 until the 14 April 2022 the public were invited to have their say on twelve values, each with their own set of characteristics, via the survey (see Appendices 4 & 5 for examples of the survey). These values were:

- Swimming (and other primary contact recreational water activities)
- Fishing (and other secondary contact recreational water activities)
- Walking, camping, picnicking, sightseeing (and other non-contact recreational water activities)
- Plants or animals that live in or near water
- Threatened species
- Habitat
- Water Quality

⁷ One of the new requirements under the new NPSFM is for all regional councils to develop long-term freshwater visions for Freshwater Management Units (FMUs and Rohe). The freshwater visions are included as objectives in the new proposed Otago RPS. The long-term freshwater visions were developed following engagement with taka whenua and consultation with local communities in October and November 2020.

- River flow and lake level
- Natural Character
- Water take/use
- Wetlands
- Groundwater

Each of the values has their own specific characteristics. Participants were asked to identify, from the list of characteristics provided, which characteristics matter to them. Participants were then asked to rate the condition of the characteristic, using a Likert scale of 1-5.8

The survey also provided people with the opportunity to identify values and characteristics not listed on the survey questionnaire.

A total of 84 people provided feedback via the online survey.

2.2.3 Locational data

Locational data was gathered via an online mapping tool (shown in Appendix 6), and a "location" field in the paper survey (shown in Appendix 5). The online mapping tool was linked to the online survey, and available for the public to "Pin their interests" between 14 March and 14 April 2022. The locational data resulted in 76 places being identified as having the values listed in the previous section. These results are shown on the map/s in Appendix 2.

2.3 Results of the survey

The survey data and comments are displayed in Appendix 1.9

3. Future consultation stages

The next consultation stage in the Dunedin & Coast FMU is scheduled to take place in the second half of 2022. It will focus on presenting environmental outcomes for the various identified community and Kai Tahu values, as well as management options to achieve these outcomes.

4. List of appendices:

Appendix 1: Survey results data

Appendix 2: Locational data

Appendix 3: Map of Dunedin & Coast FMU Appendix 4: Example of online survey

Appendix 5: Example of paper survey

Appendix 6: Example of online mapping tool

⁸ A Likert scale is a rating scale, developed to measure attitudes. The Likert scale (typically) provides five possible answers to a statement or question that allows respondents to indicate their positive-to-negative strength of agreement or strength of feeling regarding a question or statement.

⁹ At the ORC we believe in respectful communication. We have redacted survey comments that may be viewed as abusive, offensive, defamatory, disrespectful or harmful, while trying not to alter the meaning of the feedback received.

Land and Water Regional Plan Survey 2022

SURVEY RESPONSE REPORT

14 March 2022 - 14 April 2022

PROJECT NAME:

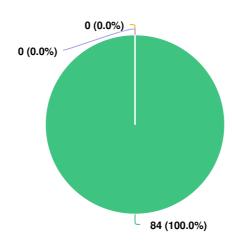
Land and Water Regional Plan Consultations

FILTER BY:

Select below the FMU or rohe you are interested in. Answered: Dunedin-&-Coast-FMU



Q1 Select below the FMU or rohe you are interested in.

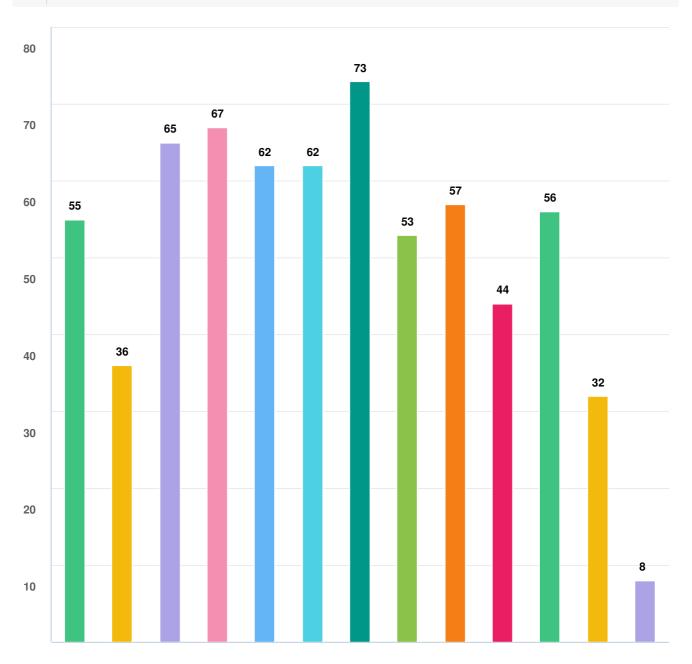


Question options

Dunedin & Coast FMUNorth Otago FMUTaieri FMU

Mandatory Question (84 response(s))
Question type: Dropdown Question

Select the things that matter to you.



Question options

Swimming (and other primary contact recreational water activities)

Fishing (and other secondary contact recreational water activities)

Walking, camping, picnicking, sightseeing (and other non-contact recreational water activities)

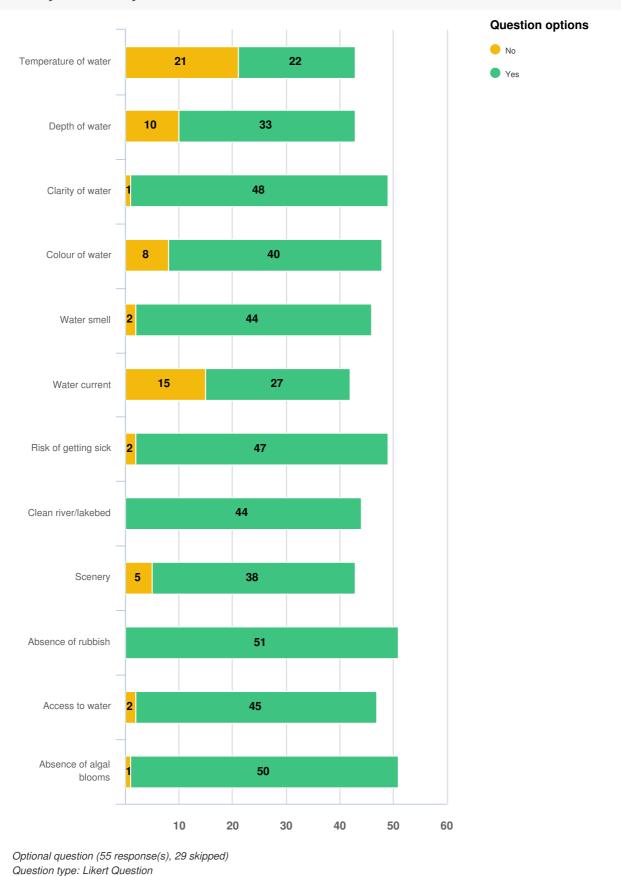
Plants or animals that live in or near water Threatened species Habitat Water quality

River flow and lake level
 Natural character
 Water take/use
 Wetlands
 Groundwater

Something else

Mandatory Question (84 response(s))
Question type: Checkbox Question

Q3 Regarding swimming (or other primary contact recreational water activities*), what matters to you?*Activities where your body or face are often underwater, wetted by spray, and where you are likely to swallow water.



Q4 How has this been over the last 5 years?



Optional question (51 response(s), 33 skipped)

Question type: Likert Question

Q5 Are there any other important characteristics you can think of? Please list them below.

Screen Name Redacted 3/14/2022 04:12 PM	Would be good if you added a not sure option to this
Screen Name Redacted 3/14/2022 10:46 PM	Softer engineering with more habitat and less blank canvas for graffiti
Screen Name Redacted 3/15/2022 01:56 PM	There is a real lack of inviting waterside picnic areas for families to take their kids and enjoy river swims. The rivers are also too polluted our dogs can't swim in them either.
Screen Name Redacted 3/15/2022 08:26 PM	condition of built structures such as dams, sea walls and piers
Screen Name Redacted 3/17/2022 08:49 AM	mainly regarding coast salt water but also local streams - Waitati River & Semple Burn
Screen Name Redacted 3/21/2022 03:08 PM	The drinking water tastes bad and stop putting flouride in the water to protect our teeth , thats what toothpaste is for . Its a scientific fact that large amounts of flouride is BAD for our brain cells and yes i work in an industry where we test the water for pollutants and its well known that the levels here are higher than they should be .
Screen Name Redacted 3/22/2022 01:23 AM	Cutting grass banks n trimming trees back n claring falling trees etc out the water ways n of regular bases az u see so much built up n lots off long grass to climb through to get to the water
Screen Name Redacted 3/24/2022 11:52 AM	Information is important - the things that make you sick in freshwater are mostly invisible.
Screen Name Redacted 3/30/2022 10:00 AM	Rubbish and the habitat being ruined by invasive species
Screen Name Redacted 3/30/2022 07:51 PM	No

Keeping the river banks clear of trees and weeds

Screen Name Redacted

4/06/2022 10:21 AM

Screen Name Redacted

4/11/2022 07:56 AM

The New Zealand Walking Access Commission Ara Hīkoi Aotearoa (the Commission) is the Crown agent responsible for providing leadership on outdoor access. We support the creation, maintenance, enhancement, and promotion of outdoor access which enables people and communities to provide for their social, economic and cultural well-being. These are the next priorities that need to be addressed. For example, public access is key to realising contact and non-contact recreation values such as waka launching, fishing, swimming and recreating to and along waterways.

Screen Name Redacted

4/11/2022 10:17 PM

NA

Screen Name Redacted

4/12/2022 12:14 PM

walkways in coastal areas; habitat for native species; safe swimming (ie areas where boats and jetskis are prohibited)

Screen Name Redacted

4/13/2022 09:58 PM

All of the above are important. We need clean water (no rubbish or pollutants) so when we interact with it, we don't get sick. Some tributaries of the Lindsay Creek are very smelly with runoff near sports fields (e.g. at Forrester Park). Provide advice to communities about areas that are ok to swim, paddle, interact with (i.e. low E coli).

Screen Name Redacted

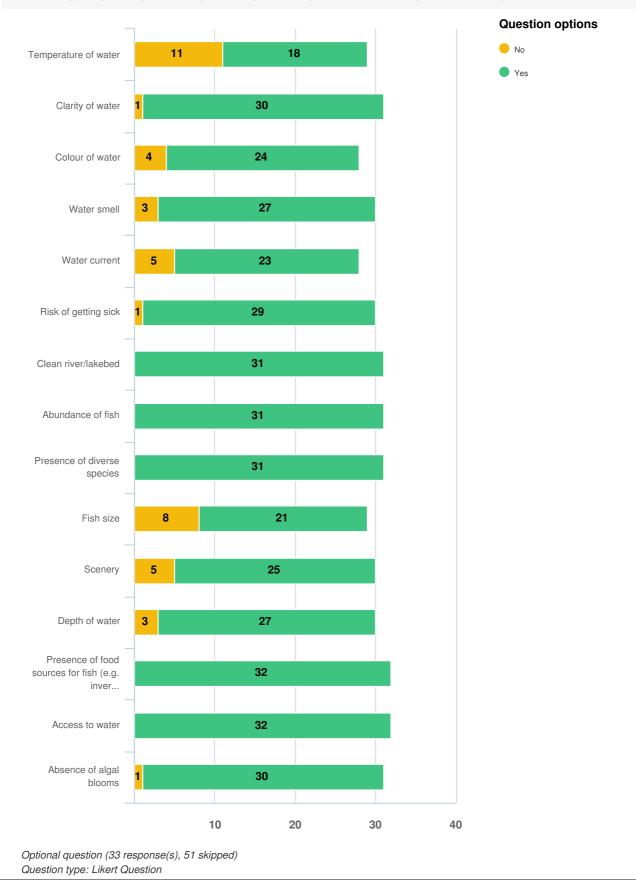
4/14/2022 05:31 PM

Natural character of swimming sites, lack of deposited sediment

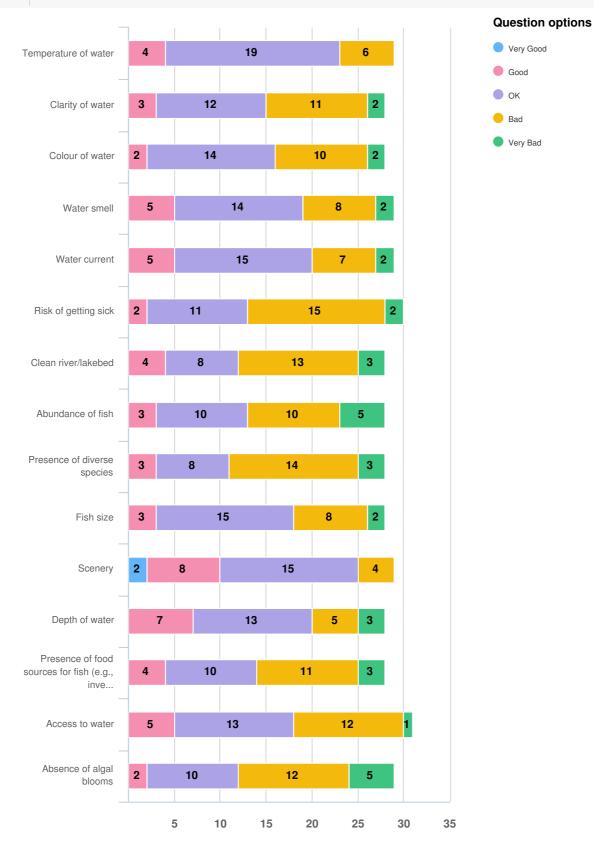
Optional question (16 response(s), 68 skipped)

Question type: Essay Question

Regarding fishing (and other secondary contact recreational water activities), what matters to you?*Activities where only your arms and legs are in contact with the water. Canoeing, kayaking, boating, sailing, rowing, duck shooting and wading are o...



Q7 How has this been over the last 5 years?



Optional question (31 response(s), 53 skipped)

Question type: Likert Question

Screen Name Redacted

3/14/2022 04:12 PM

I don't fish but it is important to me that this recreation is available to others

Screen Name Redacted

3/15/2022 01:56 PM

Again the waters are full algae and horse riders walk their horses in the river beds adding to the death rates of fish. No one wants to eat fish from a river that is dirty, and fish can't thrive in water that is shallow and lacking food. Eels die due to low river levels as well.

Screen Name Redacted

3/17/2022 08:49 AM

mainly regarding coast salt water

Screen Name Redacted

3/17/2022 01:18 PM

Invasive non-native algae

Screen Name Redacted

3/22/2022 01:23 AM

Make fishing license cheaper for family's more swimming holes in dunedin

Screen Name Redacted

3/30/2022 10:00 AM

The loss of abundance and invasive species

Screen Name Redacted

4/11/2022 07:56 AM

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Screen Name Redacted

4/13/2022 09:58 PM

Education of what species are native and exotic for people using freshwater recreationally and what species should be caught (e.g. trout) and which species should be protected (e.g. tuna).

Screen Name Redacted

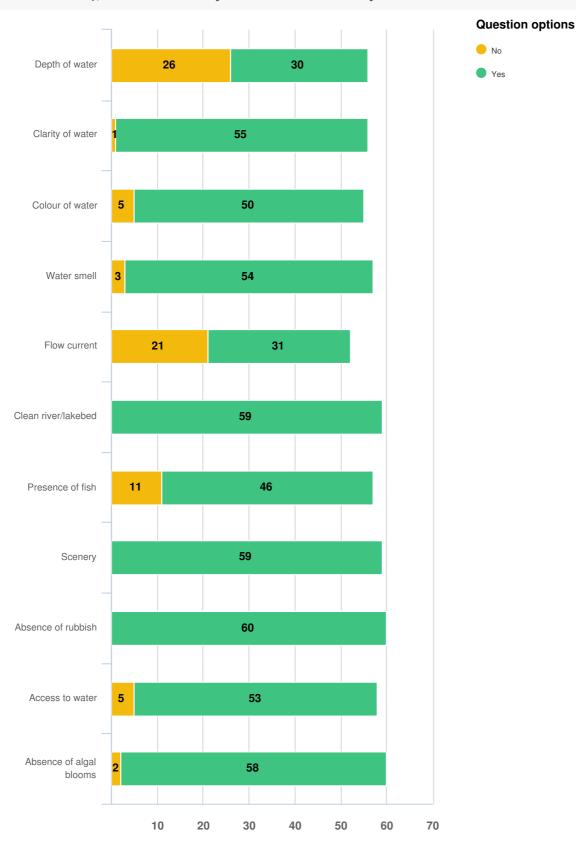
4/14/2022 05:31 PM

Natural character, river meanders, diversity of stream reaches (heterogeneity), riparian margins, diversity of habitat for fish and invertebrates particularly EPT taxa, lack of erosion, lack of deposited sediment

Optional question (9 response(s), 75 skipped)

Question type: Essay Question

Regarding walking, camping, picnicking, sightseeing (and other non-contact recreational water activities), what matters to you?*Activities where you are not in contact with the water.



Optional question (62 response(s), 22 skipped)
Question type: Likert Question
Filtering by: Select below the FMU or robe you.

Q10 How has this been over the last 5 years?



Optional question (61 response(s), 23 skipped)

Question type: Likert Question

Screen Name Redacted

3/15/2022 08:26 PM

the presence of historical built structures such the sea walls, piers and dams - their preservation and condition

Screen Name Redacted

3/18/2022 11:34 AM

Toilets and water for washing hands

Screen Name Redacted

3/21/2022 03:08 PM

Please remember the answers to these questions are an average for me over the last 5years and only represent my time outside.

Screen Name Redacted

3/30/2022 09:31 AM

Enhancement/maintenance of riparian strip around the lagoon. This is a habitat for both bird life(nesting and protection) as well as resource for fish and invertebrates. Scenery is also enhanced

Screen Name Redacted

3/30/2022 10:00 AM

rubbish everywhere. Loss of habitat. invasive species

Screen Name Redacted

3/30/2022 07:51 PM

No

Screen Name Redacted

3/31/2022 03:55 PM

n/a

Screen Name Redacted

3/31/2022 11:59 PM

As a note to above: I live beside the Toitu stream and it has lots of broken glass and other rubbish coming down it. Most of it seems old/historic, ie well worn down broken bottles. I remove whatever I find.

Screen Name Redacted

4/11/2022 07:56 AM

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Screen Name Redacted

4/11/2022 10:17 PM

NA

Screen Name Redacted

4/13/2022 05:23 PM

Too many introduced plants and weeds. Need to be cleared out and replaced with ecologically appropriate natives.

Screen Name Redacted

4/13/2022 09:58 PM

There needs to be areas of peaceful reflection, to connect with nature. Signage to educate people about the species, scenery, history of the area. Shaded areas over freshwater to reduce temperature. Great to have walking tracks where possible to encounter and connect with freshwater systems, however don't neglect areas where there isn't access as the whole catchment needs to be looked after.

Screen Name Redacted

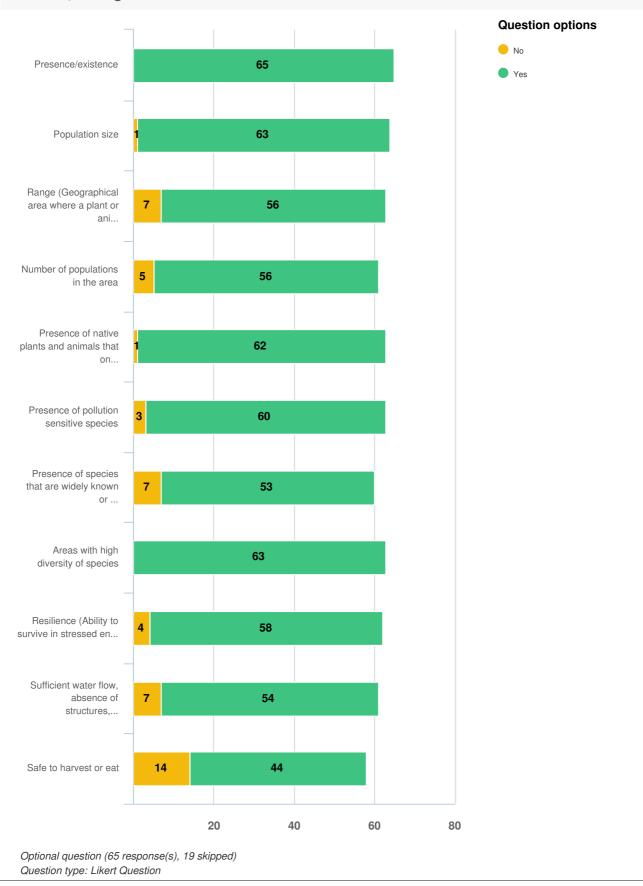
4/14/2022 05:31 PM

Natural character, diversity of stream reaches, river meander

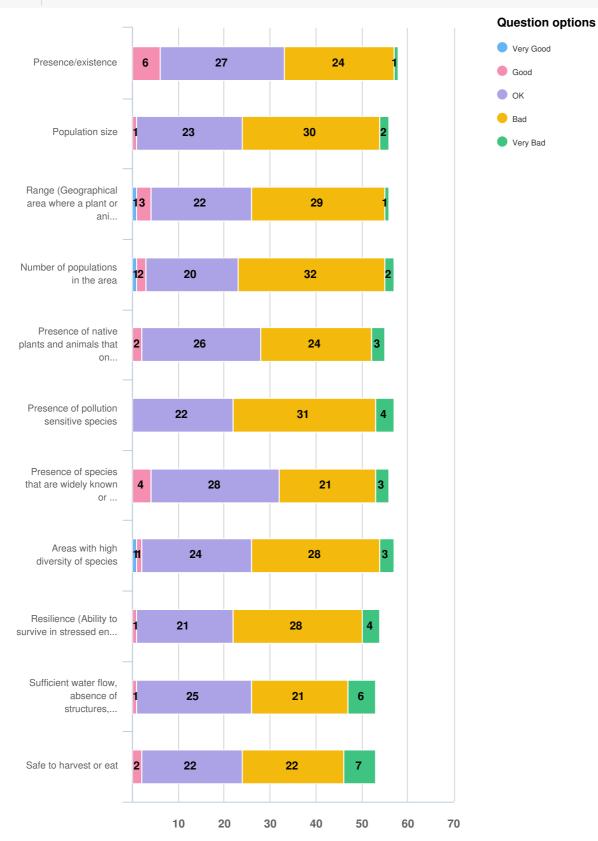
Optional question (13 response(s), 71 skipped)

Question type: Essay Question

Q12 Regarding plants or animals that live in or near water, what matters to you?Plants such as water cress, raupō, or submerged water plants or animals such as fish, ducks, microbes, mussels, or frogs.



Q13 How has this been over the last 5 years?



Optional question (59 response(s), 25 skipped)

Question type: Likert Question

Screen Name Redacted

3/14/2022 04:12 PM

Since we have farmed here we have seen a huge improvement in biodiversity going from almost nothing to increasing numbers of Kereru, pukeko, tuis ,bell birds skinks etc. Would you consider changing the answer range to allow for improving as an option. The removal of sheep and set stocking to the introduction of cattle and rotational grazing with more and more areas set aside for wildlife has changed our farm significantly.

Screen Name Redacted

3/30/2022 09:31 AM

To make sensible comment, you need to have a robust monitoring programme to do this

Screen Name Redacted

3/30/2022 10:00 AM

covered above

Screen Name Redacted

3/30/2022 07:51 PM

No

Screen Name Redacted

3/31/2022 03·55 PM

n/a

Screen Name Redacted

4/03/2022 09:45 AM

Reference mainly to my local stream whose headwaters are on/near my section. Farming, old forestry resulting in sedimentation, willows overgrowing the stream bed in places, road storm-water and low flows have meant the stream is in a poor state.

Screen Name Redacted

4/11/2022 10:17 PM

NA

Screen Name Redacted

4/13/2022 09:29 AM

Safe to harvest or eat is also related to the pollution aspect, if birds are unsafe to eat then that indicates wider problems, with waterquality as well as what they are eating.

Screen Name Redacted

4/13/2022 05:23 PM

-

Screen Name Redacted

4/13/2022 09:58 PM

There are nicer areas, but there are still many areas that require restoration, even if access is difficult. Engaging with landowners that have freshwater on their properties to enhance the health of the whole catchment. Cataloging/surveying what species occur in different areas. Places for species to live and forage. Good quality riparian vegetation over the whole catchment, not just easily accessible areas. Maintenance to ensure these areas stay of good

quality. i.e. ecological enhancement should be encouraged and support in all areas, not just those that are publicly accessible.

Optional question (10 response(s), 74 skipped)

Question type: Essay Question

Q15 Regarding threatened species*, what matters to you? *Any aquatic plant or animal that is vulnerable, endangered, or critically endangered.



Optional question (60 response(s), 24 skipped)

Question type: Likert Question

Q16 How has this been over the last 5 years?



Optional question (45 response(s), 39 skipped)

Question type: Likert Question

Screen Name Redacted

3/14/2022 04:12 PM

Once again I feel that on farm they are improving as to other areas it is hard to tell but around the ecosanctury we have more and more wildlife.

Screen Name Redacted

3/18/2022 11:34 AM

corridors around dams or alternate habitats close by

Screen Name Redacted

2/20/2022 10:00 AM

covered above

Screen Name Redacted

3/30/2022 07:51 PM

No

Screen Name Redacted

3/30/2022 09:36 PM

dams obstruct eels

Screen Name Redacted

3/31/2022 03:55 PM

n/a

Screen Name Redacted

4/01/2022 04:42 PM

Otago's freshwater biodiversity is unique with a number of rare and threatened galaxias fish that are endemic throughout the region. Many of these fish populations are small and declining. These fish will require specialized and priority attention to ensure that they continue to exist. Manage water use and allocation to ensure that threatened species are given priority. Working with Kai Tahu to understand and give effect to the aspirations of mana whenua. Invest in understanding their distribution and management requirements. Use biodiversity mapping tools to identify priority areas and work with others to share information for responsive proactive management. Climate change, land use and forestry (including carbon farming) to be addressed for the persistence of threatened species.

Screen Name Redacted

4/01/2022 10:33 PM

Lack of continual habitat/food source/lack of predators so that birds/bees can travel throughout the wider city area.

Screen Name Redacted

4/11/2022 10:17 PM

Very concerned about some of Ōtepoti threatened species such as the hoiho, with habitat loss and turbid/degraded feeding areas close to shore, pushing them further out to sea to feed, meaning they are at much higher risk. Also very worried about the sickness which tends to spread around their chicks.

Screen Name Redacted

4/13/2022 09:29 AM

Displacement is something that should be looked into more, as New Zealand's population grows and more developments take place.

Screen Name Redacted

4/13/2022 05:23 PM

Screen Name Redacted

4/13/2022 09:58 PM

Provide education opportunities for people to understand different species that can be found near or in freshwater and understand how important it is to look after them, and freshwater systems. Increase biodiversity (which can lead to increased resiliency). Survey areas for what is here.

Screen Name Redacted

4/14/2022 05:31 PM

Natural character and habitat to enable populations to flourish - I have felt that this is particularly lacking in scheduled drains or flood protection network on the Taieri. The banks are eroding, there is not natural meander, there is limited natural character - they look degraded and are a disgrace to the community - and this is sad because some of these are on the doorsteps of our community, and in fact run through our schools

Optional question (13 response(s), 71 skipped)

Question type: Essay Question

Regarding habitats*, what matters to you? *These are environments which supports fish or other life that lives in or near the water and includes the land area and vegetation next to water (riparian habitat) that provide shade, food, and/or protecti...



Q19 How has this been over the last 5 years?



Optional question (49 response(s), 35 skipped)

Question type: Likert Question

Screen Name Redacted 3/14/2022 04:12 PM	More and more plantings happening in our area. Small ponds and dams are useful as sediment traps. I am not sure where you are headed with the absence of dams???
Screen Name Redacted 3/18/2022 11:34 AM	Consistency of flow ie not low to extreme that washes away eg nesting birds in the low zone. Ease of access to them.
Screen Name Redacted 3/24/2022 08:44 AM	Coastal smothering of native plants by invasive exotic species
Screen Name Redacted 3/30/2022 10:00 AM	Too many stoats, rabbits, rats and possums and covered above
Screen Name Redacted 3/31/2022 03:55 PM	n/a
Screen Name Redacted 4/01/2022 04:42 PM	The ability to move between habitats is identified above, but for some threatened fish species the existence of barriers to prevent the migration of trout is essential. This may involve natural or artificial barriers. Habitat complexity and diversity Planted margin - should predominantly be with locally relevant indigenous vegetation. Stock exclusion Working with Kai Tahu to understand and give effect to the aspirations of mana whenua.
Screen Name Redacted 4/11/2022 10:17 PM	Estuarine and riparian margins in Ōtepoti tend to be primarily grass. Lagoons are plagued with algae (tomahawk) and rivers are polluted with agricultural and stormwater discharges.
Screen Name Redacted 4/12/2022 07:33 PM	Removal of weeds
Screen Name Redacted 4/13/2022 05:23 PM	-
Screen Name Redacted 4/13/2022 09:58 PM	There are nicer areas, but there are still many areas that require restoration, even if access is difficult. Engaging with landowners that have freshwater on their properties to enhance the health of the whole catchment. Identify and map which habitats are here. Increase biodiversity and support native species with good quality habitat and

food sources. Places for plants to grow i.e. prioritize 'soft' flood protection structures (sand, gravel, boulders) over 'hard' (i.e. concrete), that can still protect against flooding but also benefit

species. Educate people on what is considered good quality habitat. Involve volunteers/schools/community/sports clubs in restoration efforts. Enhance all areas for ecological outcomes, not just those that can be visited and 'used'.

Screen Name Redacted

4/14/2022 05:31 PM

Natural character and meander and diversity of stream reaches as

above

Optional question (11 response(s), 73 skipped)

Question type: Essay Question

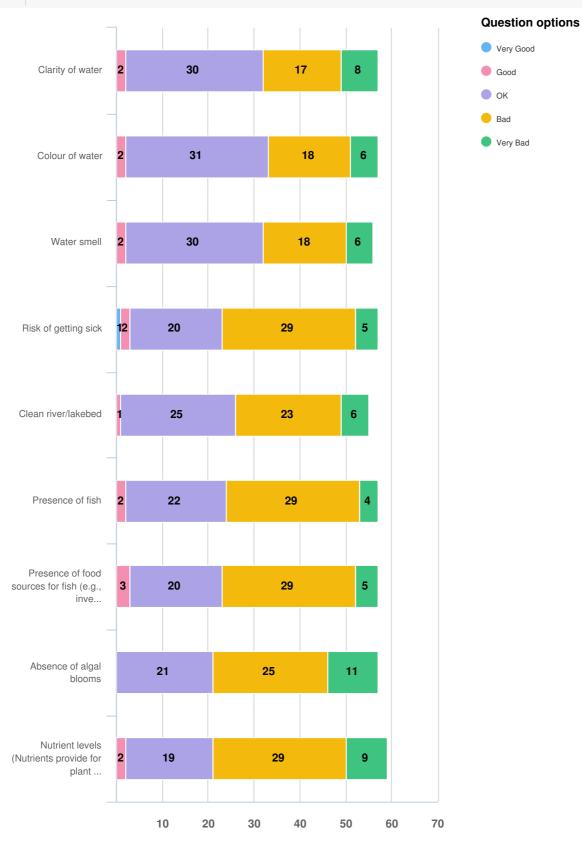
Regarding water quality*, what matters to you?*The health and well-being of the water, including chemical, physical, and biological characteristics.



Optional question (70 response(s), 14 skipped)

Question type: Likert Question

Q22 How has this been over the last 5 years?



Optional question (61 response(s), 23 skipped)

Question type: Likert Question

Screen Name Redacted

3/14/2022 04·12 PM

Please consider doing something about the uncontrolled discharge of urban stormwater and grey water on to rural land .

Screen Name Redacted

3/17/2022 08:49 AM

Many of these factors can change over short timespans - drought, flood, disturbance of bed upstream localised pollution.

Screen Name Redacted

3/30/2022 10:00 AM

covered above

Screen Name Redacted

3/30/2022 07:51 PM

No

Screen Name Redacted

3/31/2022 03:55 PM

n/a

Screen Name Redacted

4/01/2022 04:42 PM

Water quality can vary along a catchment. Poorer quality is often lower downstream and associated with farming. A continuous improvement approach is required in these areas. Working with Kai Tahu to understand and give effect to the aspirations of mana whenua.

Screen Name Redacted

4/05/2022 02:40 PM

Dairy farming needs to be reduced and planting of native trees is essential

Screen Name Redacted

4/13/2022 05:23 PM

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Screen Name Redacted

4/13/2022 09:58 PM

There are nicer areas, but there are still many areas that require restoration, even if access is difficult. Engaging with landowners that have freshwater on their properties to enhance the health of the whole catchment. Good quality riparian habitat to reduce water contaminants/pollution via land and air. Presence of invertebrates (e.g. macoinvertebrates, koura) and native fish species, kanakana, tuna not just as food sources of other species, but indicators of healthy waterways. No or low presence of E. coli so water is safe to drink. Low presence of trout. Reduced silt/sediment Reduce runoff from roads that contaminate freshwater systems. Engage people to help clean and keep freshwater ways healthy. Strategies to stop pollutants (litter, plastics, microplastics, metals) entering freshwater systems in the first place, as it's very difficult to remove them once they are in. Less paving of backyards. Many are now being paved for

parking rather than as gardens. This influences runoff and can increase pollutants entering freshwater systems as impermeable surfaces. Educate people so not to clean their cars on the street to prevent soaps entering storm water drains, or provide devices to prevent this.

Screen Name Redacted

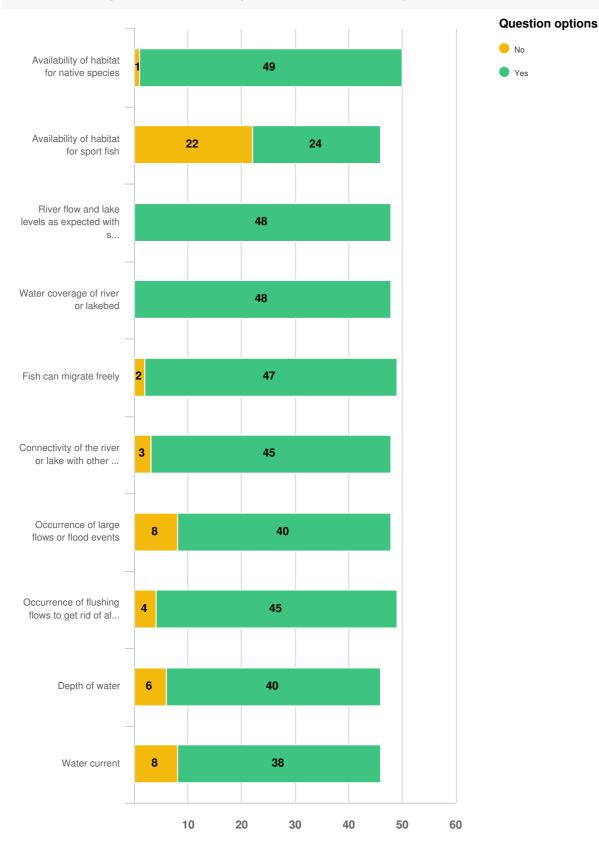
Temperature, dissolved oxygen levels

4/14/2022 05:31 PM

Optional question (10 response(s), 74 skipped)

Question type: Essay Question

Q24 Regarding river flow and lake levels*, what matters to you?*The patterns of high and low flows and processes that shape river channels, floodplains and lakes.



Optional question (51 response(s), 33 skipped)

Question type: Likert Question

Q25 How has this been over the last 5 years?



Optional question (42 response(s), 42 skipped)

Question type: Likert Question

Screen Name Redacted

3/15/2022 08:26 PM

the historical built structures that are associated with the waterways and their preservation and condition

Screen Name Redacted

3/17/2022 08:25 PM

Overall minimum river flow in some catchments seems to have significantly fallen

Screen Name Redacted

3/18/2022 11:34 AM

Fish don't have to migrate widely if suitable spawning grounds are still available in the restricted environ.

Screen Name Redacted

3/30/2022 10:00 AM

covered above

Screen Name Redacted

3/31/2022 03:55 PM

n/a

Screen Name Redacted

3/31/2022 11:59 PM

I don't believe any animals (including fish) should be used for sport.

Screen Name Redacted

4/01/2022 04:42 PM

Improving timely and science based decision making in council processes.

Screen Name Redacted

4/03/2022 02:10 PM

degradation of bank of Lindsay Creek through Chingford Park from water flow during high rainfall events with potential to threaten properties along the Creek. No evidence of regular maintenance of the bank, or communication between ORC and DCC, and confusion of demarcation of areas of responsibility. Residents/ratepayers along the Creek do not have the resources or expertise to do remedial work on the bank, proliferation of 'weed' species like Sycamore.

Screen Name Redacted

4/13/2022 05:23 PM

-

Screen Name Redacted

4/13/2022 09:58 PM

Mapping areas and structures that prevent native fish migration. Adapting or removing/redeveloping structures that prevent native fish migration to allow this migration.

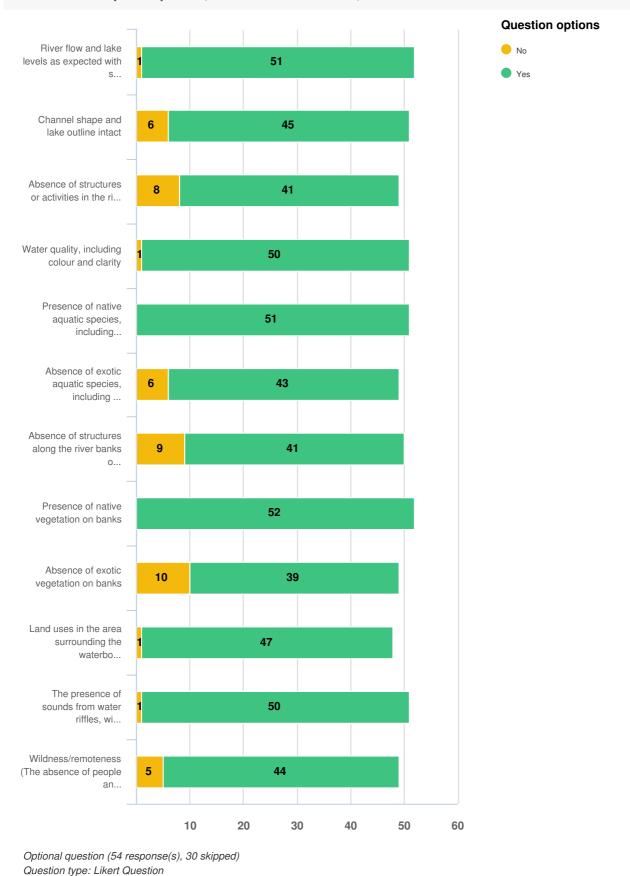
Screen Name Redacted

4/14/2022 05:31 PM

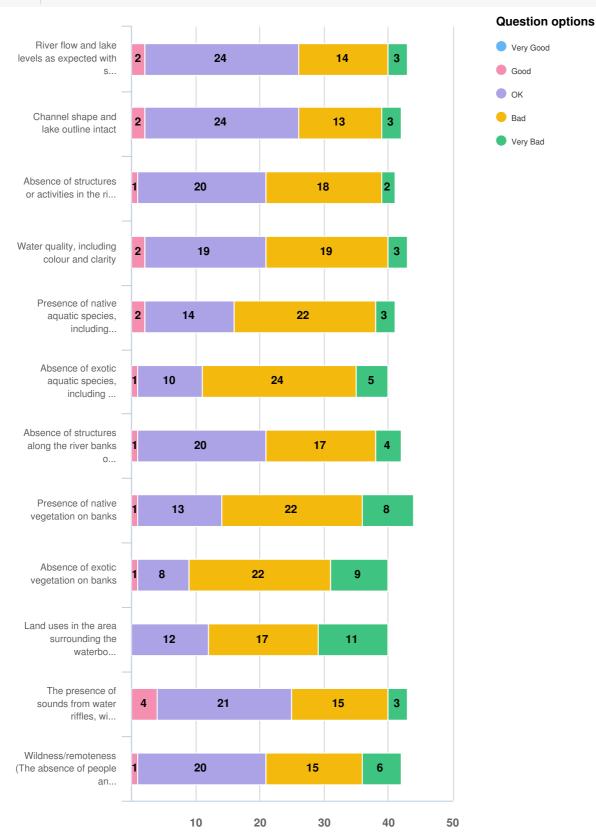
Diversity of stream reaches with diversity of flow regimes

Optional question (11 response(s), 73 skipped)

Regarding natural character*, what matters to you? *The presence of natural processes, such as the action of rivers or wave action on lakes, the movement of animals and the natural succession of plant species, and natural elements, such as clean wa...



Q28 How has this been over the last 5 years?



Optional question (44 response(s), 40 skipped)

Question type: Likert Question

Q29 Are there any other important characteristics you can think of? Please list them below.

Screen Name Redacted

3/17/2022 08:49 AM

We experience a wide range of environments in Otago so so hard to generalise - have acute local issues but also am aware of stuff like the Lindis and other catchments.

Screen Name Redacted

3/18/2022 11:34 AM

Allow people into wild areas but with limitations eg boardwalks or paths that keep people away from sensitive areas. ACCESS is very important to me. toilets and hand washing water should be provided (tank with a tap). Control use of exotic plants and fish - use only what is useful and compatible with the native species, biodiversity and ecological balance.

Screen Name Redacted

3/22/2022 01:23 AM

Clearing water way more often

Screen Name Redacted

3/30/2022 10:00 AM

covered above

Screen Name Redacted

3/31/2022 03:55 PM

n/a

Screen Name Redacted

4/13/2022 05:23 PM

-

Screen Name Redacted

4/13/2022 09:58 PM

Some areas will benefit from restoration and an absence of human habituation. However, there still must be some areas where access is easy for people to be able to enjoy freshwater and connect with nature.

Screen Name Redacted

4/14/2022 05:31 PM

natural character important with lack of this in drainage schemes, which hold populations of our important native species

Optional question (8 response(s), 76 skipped)

Question type: Essay Question

Q30 Regarding water take/use*, what matters to you?*The taking of water for a variety of uses, including human consumption, stock drinking water, hydro-electricity generation, irrigation and a variety of other commercial or industrial uses.



Q31 How has this been over the last 5 years?



Optional question (34 response(s), 50 skipped)

Question type: Likert Question

Screen Name Redacted

3/18/2022 11:34 AM

Commercial bottlers of water should pay a dividend towards continued management of the waterway as they benefit from it being managed and clean. Farmers maybe a small contribution too, so they don't use water wastefully.

Screen Name Redacted

3/30/2022 10:00 AM

covered above

Screen Name Redacted

3/30/2022 10:43 AM

Commercial bottling of water is abhorrent unless the profits are correctly redistributed to everyone. Companies making huge profits from a shared resource because they got consent first is unethical.

Screen Name Redacted

3/31/2022 11:59 PM

All of the above need to be sustainable - ie population levels and commercial activities should not be allowed to outstrip an areas capacity to easily support them with water.

Screen Name Redacted

4/01/2022 04:42 PM

Council processes to manage the increasing demand for water against overallocation.

Screen Name Redacted

4/11/2022 10:17 PM

I believe that water should only be taken from water bodies for drinking for humans. Agriculture needs to be phased out and transitioned into less intrusive plant farming which uses much less water. Wind and solar power need to be incentivised over hydro power.

Screen Name Redacted

4/13/2022 05:23 PM

-

Screen Name Redacted

4/13/2022 09:58 PM

It would be amazing if we are able to get to a point that freshwater is drinkable, but only taken opportunistically while out walking or interacting with freshwater recreationally, rather than for households.

Optional question (9 response(s), 75 skipped)

Question type: Essay Question

Q33 Regarding wetlands*, what matters to you?*A wetland is an ecosystem that supports plants and animals adapted to wet conditions and includes permanently or intermittently wet areas of land.



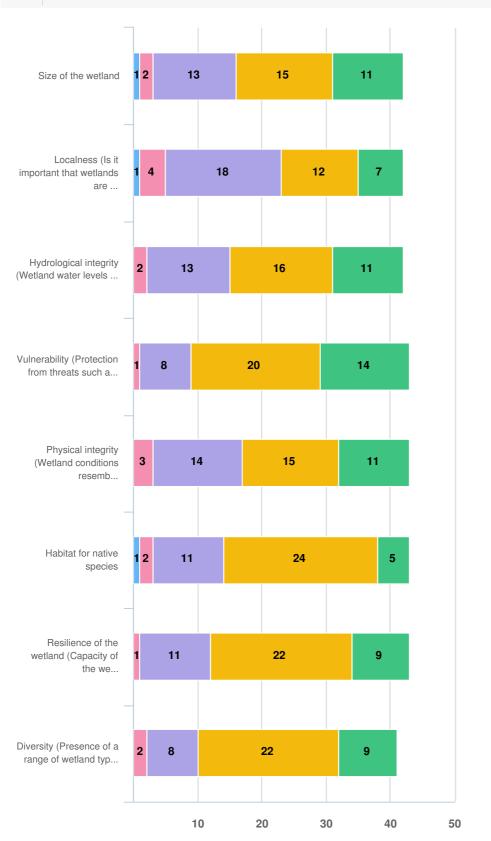
Question options

Very Good
Good

OK

Very Bad

Q34 How has this been over the last 5 years?



Optional question (44 response(s), 40 skipped)

Question type: Likert Question

Screen Name Redacted

3/18/2022 11:34 AM

Size is important when the wetland is a part of filtering soil nutrients before they enter the wider waterway

Screen Name Redacted

3/30/2022 10:00 AM

covered above and invasive species

Screen Name Redacted

3/30/2022 10:43 AM

Wetlands are incredibly important to our ecosystem and should be maintained and expanded as much as possible.

Screen Name Redacted

3/30/2022 07:51 PM

No

Screen Name Redacted

3/31/2022 03:55 PM

n/a

Screen Name Redacted

3/31/2022 11:50 PM

Even the smallest areas of natural wetlands should be protected.

Screen Name Redacted

4/01/2022 04:42 PM

Environmental services that are provided by wetlands - eg to manage water flows and manage climate change impacts. Protection of coastal wetlands from sea level rise and manage coastal squeeze. Facilitate processes to enable the restoration of wetlands (free consenting or supporting council processes, supplementing fencing and weed control, facilitating hydrological management, community engagement and support)

Screen Name Redacted

4/13/2022 05:23 PM

Screen Name Redacted

4/13/2022 09:58 PM

Great if wetlands can remain as natural and unchanged as possible. Education for people of what is a wetland and the difference between different freshwater systems.

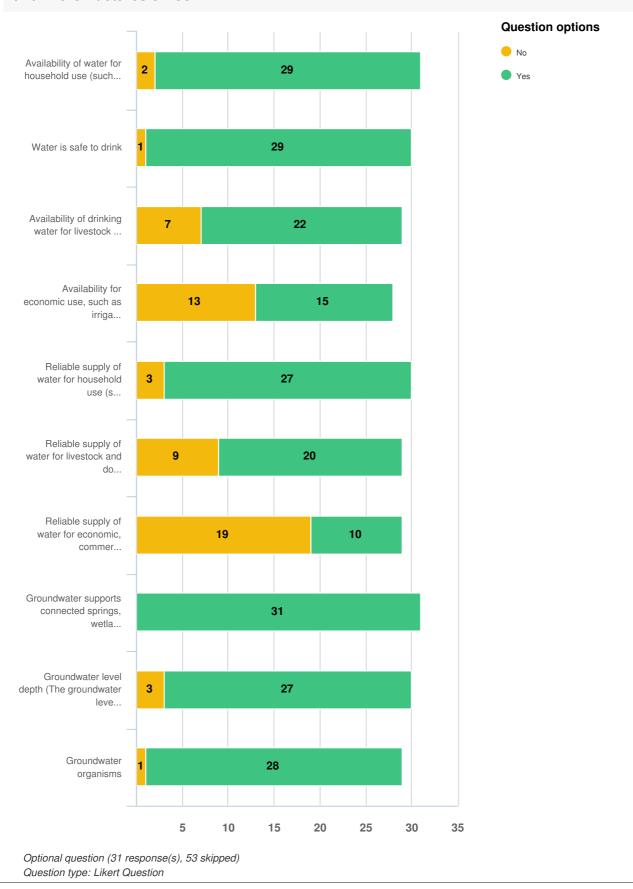
Screen Name Redacted

4/14/2022 05:31 PM

Threatened and there is not enough work being undertaken to promote this reinstatement and protection - needs a dedicated funding mechanism and one that goes towards not just big areas such as Sinclair wetlands, but promotes protection, reinstatement and enhancement on a much smaller scale

Optional question (10 response(s), 74 skipped)

Q36 Regarding groundwater*, what matters to you?*Groundwater is the water that has infiltrated the soil beyond the surface and is present beneath earth's surface in gravels, soil and in the fractures of rock.



Q37 How has this been over the last 5 years?



Optional question (23 response(s), 61 skipped)

Question type: Likert Question

Q38 Are there any other important characteristics you can think of? Please list them below.

Screen Name Redacted

3/14/2022 06:57 PM

I'm concerned about high levels of nitrates in groundwater from intensive daiying leading to diseases such as bowel cancer.

Screen Name Redacted

3/18/2022 11:34 AM

'Reliable supply' from rivers or bores must be responsible use ie must be balanced with collecting and using collected rainwater to minimise

the environmental impact esp in dry/ drought conditions.

Screen Name Redacted

3/31/2022 11:59 PM

Groundwater should not be disturbed/used if it affects the broader

ecosystem

Optional question (3 response(s), 81 skipped)

Question type: Essay Question

Q39 What else matters to you?

Screen Name Redacted

3/14/2022 04:12 PM

Pest control . There are large pockets of DOC land that have little or no pest control locally. These are going to be under the proposed Halo project extention to the predator free zone . So fingers crossed

Screen Name Redacted

3/17/2022 08:25 PM

The economic consequences of restricting water use for commercial operations. Also the economic consequences of a "vision list" which would be nice to achieve, but has had little or no assessment or acknowledgement of the potential costs to achive.

Screen Name Redacted

4/11/2022 07:56 AM

The Commission submits that public access should be included as a key resource throughout the Land & Water Plan - for enabling and ensuring freshwater management that complies with the obligations, principles and requirements of Te Mana o Te Wai.

Screen Name Redacted

4/13/2022 09:58 PM

Providing maps, photos, videos allowing people to connect with freshwater if not physically able to access or can't visit.

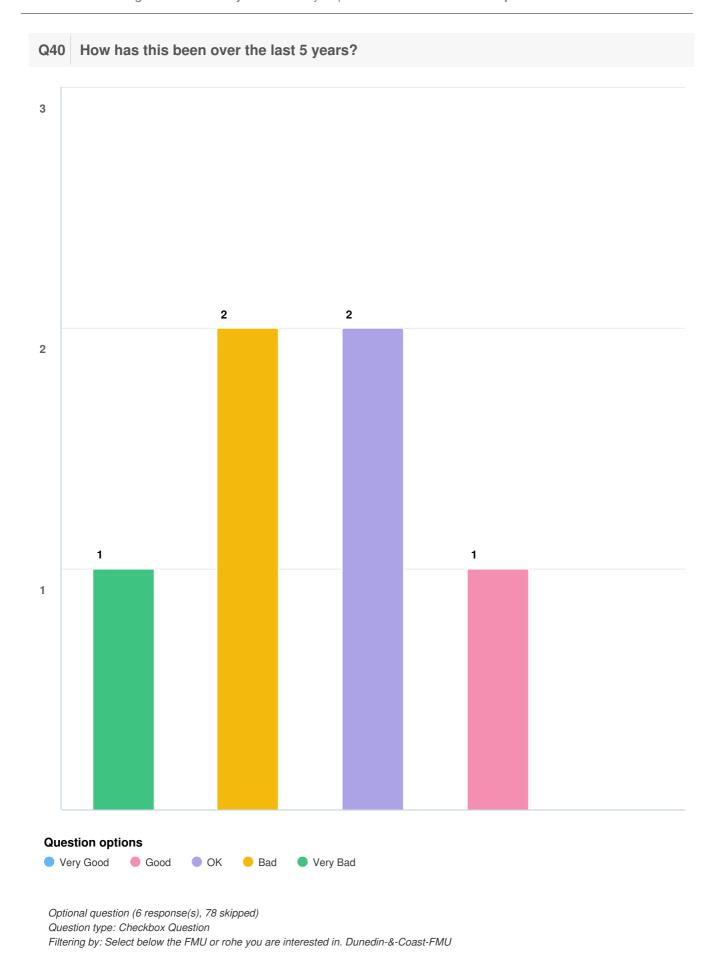
Screen Name Redacted

4/14/2022 05:31 PM

Natural character of water bodies - I feel like we do not consider these holistically - all values matter. Of particular concern are the Taieri drains - of particular note are tributaries of the Owhiro Stream these are highly modified and appear forgotten

Optional question (5 response(s), 79 skipped)

Question type: Single Line Question



Q41 Let us know if there is anything else you would like to tell us.

Screen Name Redacted

3/14/2022 04:12 PM

As farmers in this rohe we are also concerned that our activities be allowed to continue while at the same time we are keen to preserve and improve our biodiversity and water quality.

Screen Name Redacted

3/15/2022 08:26 PM

The work on the sea walls around Otago harbour has been superb as has the work on the Ross creek reservoir and dam

Screen Name Redacted

3/17/2022 08:49 AM

Really appreciate the work of the ORC staff - have dealt with you several times. But deeply unhappy with the performance and make up of ORC councillors - feel it is dominated by farming lobby and populist RW bigots. Ward system is deeply flawed.

Screen Name Redacted

3/17/2022 01:18 PM

I have a science degree and found this survey not very easy or user friendly. I imagine the general public will struggle and lose interest. (Which is too bad as they would learn some things if they stuck with it Burt I just can's see them doing so. You need to rethink its design I fear...)

Screen Name Redacted

3/18/2022 11:34 AM

Could we have picnic areas with a small walk in from carparks to enjoy the 'wild' feel of nature without city and car/street noises, with trees and plants that draw the birds into, and are sunny and protected from prevailing winds? It will raise people's appreciation of nature and hopefully care as well, as well as being restful and healing for the soul.

Screen Name Redacted

3/21/2022 03:08 PM

The orc and the dcc should be working together to help and support the people of Otago and Not taking court action against each other, both are selfish and ignorant of each other. Both parties care little for the people they SERVE and care more for the budgets that will put more money in their own pockets and to flex their political muscle and do stupid things such as paint coloured circles in the main street and to increase parking charges around the city to pay for those circles. Instead of chasing people out of the city which is what is happening would it not be a better idea to have people want to come in and increase commercial revenue buy lowering the parking charges even by a third. Its greed not covid killing the city!

Screen Name Redacted

Clean water, wet lands and environment need to be the most

3/22/2022 12:51 PM

important thing on the agenda. Degrading water and environment for commercial gain is not acceptable.

Screen Name Redacted

3/24/2022 08:44 AM

Stronger regulations re coastal development, vehicles on beaches/sand dunes, JetSkis on waterways...noise

Screen Name Redacted

3/30/2022 09:19 AM

Would have been helpful to have a "not sure" response

Screen Name Redacted

3/30/2022 10:00 AM

I don't think that the design of this survey is right. It hasn't asked questions in a way that is going to get the answers you need.

Screen Name Redacted

3/30/2022 10:43 AM

It is crucial for to be a "don't know" option for the survey questions. For many of the options asking about performance/status over the last 5 years I have no idea so selected OK by default, which isn't a good representation.

Screen Name Redacted

3/30/2022 12:01 PM

nature needs protecting from us

Screen Name Redacted

3/30/2022 07:51 PM

None

Screen Name Redacted

3/31/2022 03:55 PM

n/a

Screen Name Redacted

4/01/2022 04:42 DM

I request that you apply my comments above for the Dunedin/Coastal FMU to all FMUs over the whole Otago region. All areas should have fundamental principles of care for the quality and quantity of water, the environment it is in, its biodiversity and its underlying cultural values. I note that making choices above relating to whether an issue has been good or bad over the last 5 years was difficult. My choices have largely been negative. This is not intended to undervalue the work of the Council, or others including tangata whenua, environmental and community groups and landowners who are seeking improvements, but we can and should do better, and the rate of change is too slow, unstructured or inadequate. I submit that the Council work closely with Kai Tahu Runaka and landowners on the plan to achieve and monitor outcomes that meet cultural aspirations, and retain freshwater values and opportunities for future generations. I submit that the Council consider climate change effects in all its decision relating to the plan. In particular, the allocation and use of

water in arid areas or areas that may be affected by sea level rise, places that are habitats for threatened species, or where there are significant changes in land use or where commercial demand is high.

Screen Name Redacted

4/03/2022 09:45 AM

I've not been around many lakes or rivers in the last 5 years. Definitely not often enough to judge trends of most of the questions here. I'd like to think the local streams are healthy and have a vibrant, diverse range of aquatic species, but I know most of them don't. Most of my local strams are in town though, and my 'own' stream is heavily damaged (working on fixing that though.) It does improve as you head out of town.. but as noted, I've not been around many for any length of time for years.

Screen Name Redacted

4/11/2022 07:56 AM

The New Zealand Walking Access Commission Ara Hīkoi Aotearoa (the Commission) is the Crown agent responsible for providing leadership on outdoor access. Our governing piece of legislation is the Walking Access Act 2008. The Commission works with community trails groups, iwi, landowners, territorial authorities and others to create access opportunities across the motu. Our role is to provide advice on free, certain, enduring, and practical access to the outdoors. We administer a national strategy on outdoor access, including tracks and trails. We provide information to the public, oversee a code of responsible conduct in the outdoors, help to resolve access issues and negotiate new access. The public access layers on our Walking Access Mapping System provide a comprehensive spatial capture of publicly accessible areas. We support the creation, maintenance, enhancement, and promotion of outdoor access, for recreation, culture, for safety, health and wellbeing, and for environmental improvement. The Commission notes that consultation for the Regional Policy Statement has helped identify the unique and treasured ecological, cultural and community values that are provided by the region's water bodies. Our interest lies across all three of these values because public access enables ecological stewardship, cultural engagement and recreational values to be protected and enhanced. There are significant areas of public land along riparian margins over which there is usually, but not always, a right of public access - for example marginal strips, reserves, unformed legal roads and Crown land. There are also gaps in the provision of public access - and these can form barriers to implementing freshwater management as envisaged in Te Mana o Te Wai. The Commission recommends public access provision is included in the plan. Public access is a key resource that enables communities and the wider public to protect the health and well-being of the water - and the human health needs it sustains. This is a priority for implementing Te Mana o te Wai through the Land & Water Plan. Examples include access for riparian restoration projects. A

broader consideration would be that reconnecting communities to waterways influences the value that people place on the health of those waterbodies. Public access is key to enabling people and communities to provide for their social, economic and cultural wellbeing, and these are the next priorities that need to be addressed. For example, public access is key to realising contact and noncontact recreation values such as waka launching, fishing, swimming and recreating to and along waterways. Provision for access underpins cultural wellbeing – for example through access to cultural resources, supporting manaakitanga and enabling kaitiakitanga. The Commission has made online submissions on Taiari (Taieri), Dunedin & Coast and Roxburgh FMU's. Although online submissions for Dunstan, Lower Clutha and Roxburgh Rohe have closed, this high level submission covers those also. A high level submission covering all rohe has also been sent via email.

Screen Name Redacted

4/11/2022 06:42 PM

It would be nice to be able to enter local bodies of water without getting sick or without pets getting sick.

Screen Name Redacted

4/13/2022 05:23 PM

-

Screen Name Redacted

4/13/2022 09:58 PM

Understanding how habitat has changed over time. Education into freshwater toxins and how these affect freshwater species. Artwork e.g. around storm water drains to show connection to freshwater visually. Education on how connected to freshwater systems we are, e.g. storm water, tributaries. Provide opportunities for people to connect with local freshwater (e.g. events, education days). Great to have the only drain rain resource. Great to have community advisors to facilitate community education. Education on the history and cultural layers of different areas. Ensure areas that are not accessible can remain wild but are still enhanced with good quality habitat.

Screen Name Redacted

4/14/2022 12:36 AN

Did not feel I was well enough informed to answer factual questions about the last 5 years.

Screen Name Redacted

4/14/2022 05:31 PM

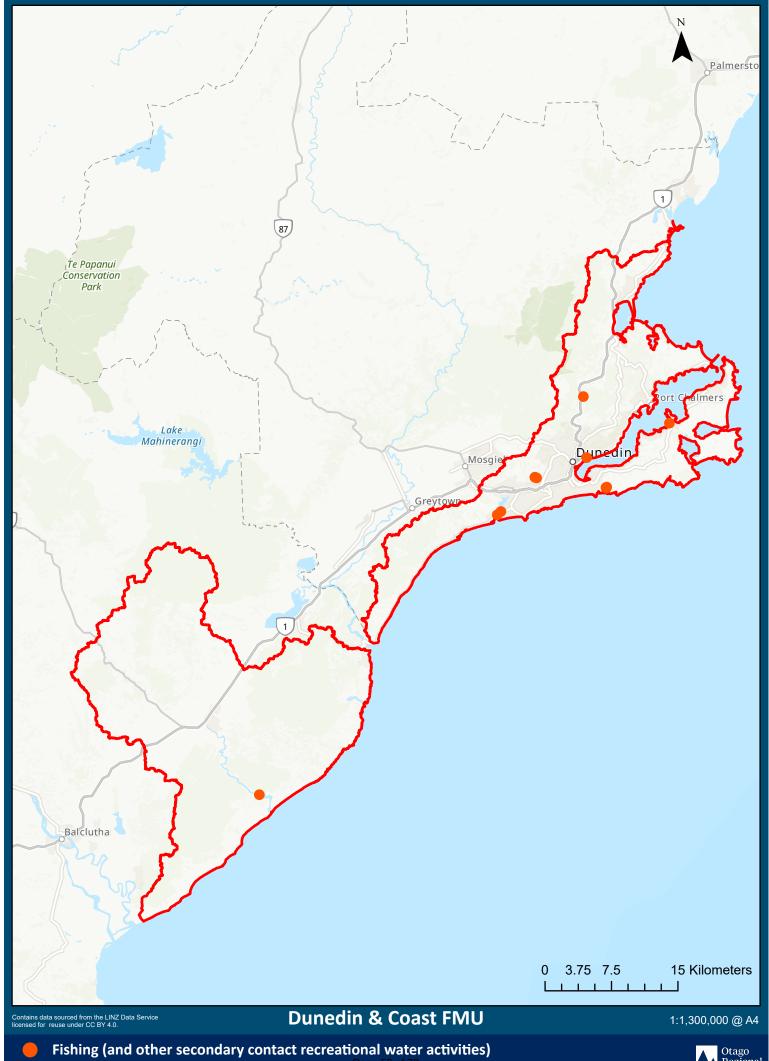
I feel the engineering team needs to work alongside science and biodiversity to work on ways that we can maintain the same functionality of our waterways, but enable the natural character to be maintained. My observation is that currently these departments are siloed. We should be thinking about not only getting rid of the water in order to avoid flooding, but what holistically can we do to maintain water flows, while maintaining natural character - e.g. riparian wetlands, woody debris dams, reinstating natural meander, enabling

rather than imposing obstacles to undertake riparian planting. all of these measures will enhance channel capacity while enhancing natural character and habitat sites and abundance for our waterways. My main point is the departments tend to be too siloed, and fixated on meeting a rule in a plan rather than doing what is best for the environment and enabling ways in which this can be done. Thanks sorry for the rant:-)

Optional question (22 response(s), 62 skipped)

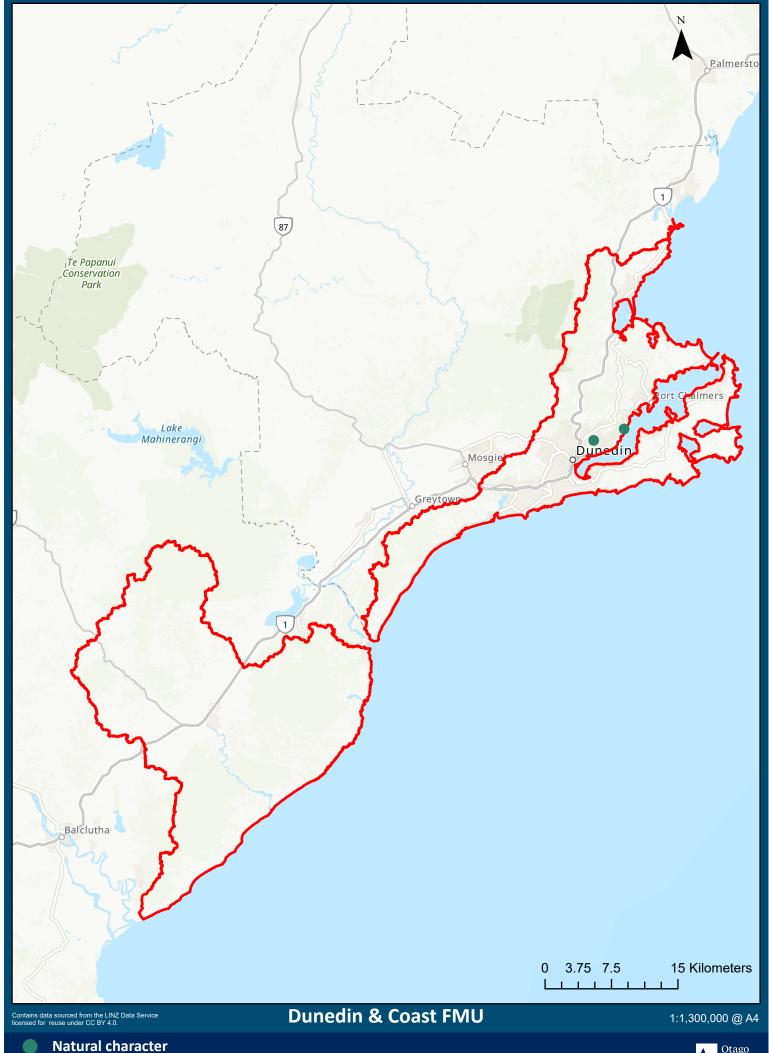
Question type: Essay Question





Dunedin & Coast FMU





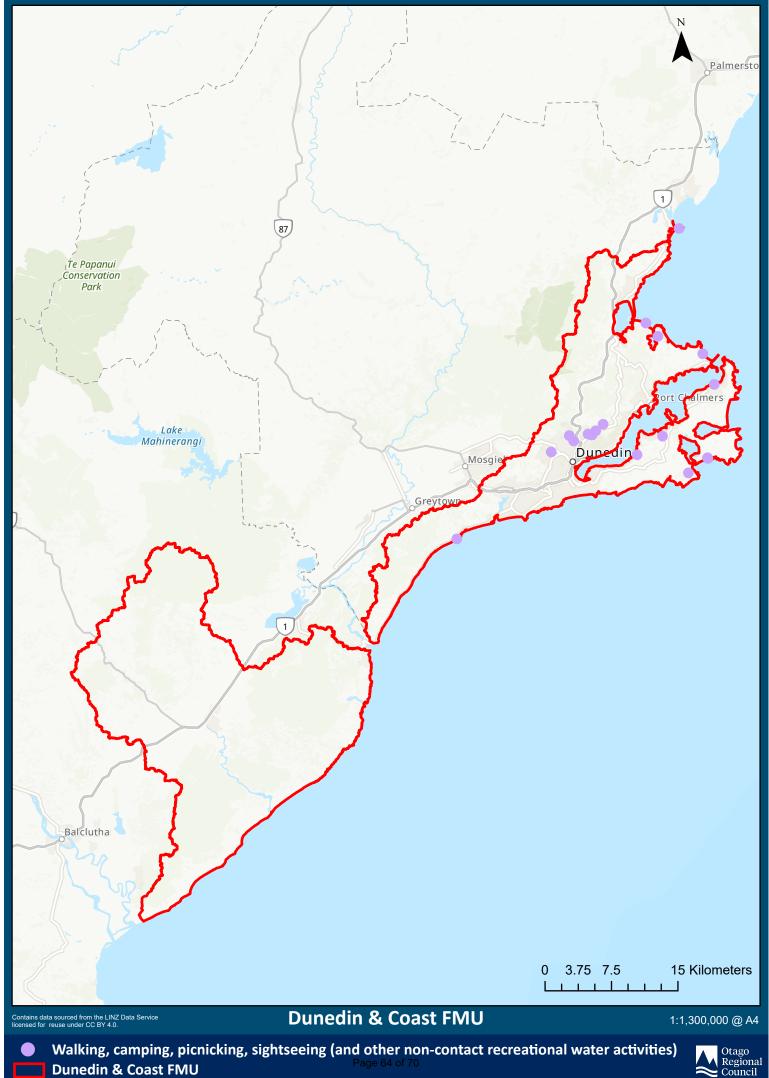
Natural character
Dunedin & Coast FMU



Dunedin & Coast FMU
ation on this map may not be used for the purposes of any legal disputes. The user should independently verify the accuracy of any information before taking any action in reliance u









Dunedin & Coast FMU

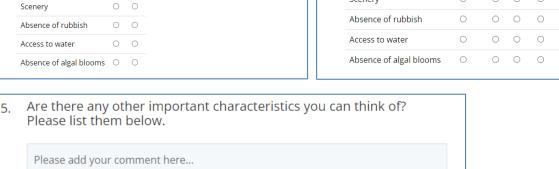


Appendix 3: Map of Dunedin & Coast FMU



Appendix 4: Example of online survey

Select below the FMU or rohe you are interested in. * Choose an option Select the things that matter to you. * ☐ Swimming (and other primary $\hfill\Box$ Fishing (and other secondary contact contact recreational water activities) recreational water activities) ☐ Plants or animals that live in or near ☐ Walking, camping, picnicking, sightseeing (and other non-contact recreational water activities) ☐ Habitat ☐ Threatened species ☐ Water quality ☐ River flow and lake level ☐ Natural character ☐ Water take/use □ Wetlands ☐ Groundwater ☐ Something else Regarding swimming (or other primary contact recreational water activities*), what matters to you? How has this been over the last 5 years? *Activities where your body or face are often underwater, wetted by spray, and where you are likely to swallow water Very Bad Bad OK Good Very Good Temperature of water Yes No Depth of water Temperature of water 0 0 Depth of water 0 0 Clarity of water 0 0 \circ Clarity of water Colour of water 0 0 0 0 0 Colour of water Water smell 0 0 Water smell Water current 0 0 Water current Risk of getting sick Risk of getting sick Clean river/lakebed Clean river/lakebed 0 0 0 Scenery



Appendix 5: Example of paper survey

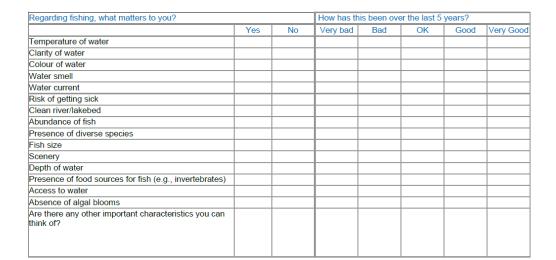
Land and Water Regional Plan Consultations YourSay | Otago Regional Council **Swimming Location field** Activities where your body or face are often underwater, wetted by spray, and where you are likely to swallow water. Where do you swim in freshwater? Please list locations Regarding swimming, what matters to you? How has this been over the last 5 years? Bad Temperature of water Depth of water Clarity of water Colour of water Water smell Water current Risk of getting sick Clean river/lakebed Scenery Absence of rubbish Access to water Absence of algal blooms Are there any other important characteristics you can Land and Water Regional Plan Consultations

Fishing (secondary contact recreational water activities)

Activities where only your arms and legs are in contact with the water, like kayaking, boating, duck shooting and wading.

Where do you fish in freshwater? Please list locations

YourSay | Otago Regional Council



Appendix 6: Example of online mapping tool

