

Developing a freshwater management framework for the Dunstan rohe

STAGE 1 COMMUNITY CONSULTATION - OVERVIEW REPORT OF
FEEDBACK RECEIVED (MARCH 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 Dunstan rohe.

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 and the Dunstan is one of these rohe. Maps showing the boundaries of the Dunstan rohe and Clutha Mata-au FMU are shown in Appendices 3 and 4.

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 28 February 2022 at 7pm, an online community meeting was held. 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 Dunstan rohe.⁷ This was followed by a demonstration of the online survey and mapping tool. The presentation was interspersed with facilitated group discussion on visions, values and desired environmental outcomes for their area.

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 28 February 2022 until the 28 March 2022 the public were invited to have their say on twelve values, each with their own set of characteristics, via the survey (see Appendices 5 & 6 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
- River flow and lake level

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.

- 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 68 people provided feedback via the online survey.

2.2.3 Locational data

Locational data was gathered via an online mapping tool (shown in Appendix 7), and a “location” field in the paper survey (shown in Appendix 6). The online mapping tool was linked to the online survey, and available for the public to “Pin their interests” between 28 February and 28 March 2022. The locational data resulted in 19 places being identified as having the values of swimming, fishing, wetlands, water quality, non-contact recreation, river flow/lake level and water take. These results are shown on the maps 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 Dunstan rohe 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 Dunstan rohe

Appendix 4: Map of the Clutha Mata-au FMU

Appendix 5: Example of online survey

Appendix 6: Example of paper survey

Appendix 7: 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

28 February 2022 - 30 March 2022

PROJECT NAME:

Land and Water Regional Plan Consultations

COMPARE BY:

Select below the FMU or rohe you are interested in.

Answered : Dunstan Rohe

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



Comparing by:

Select below the FMU or rohe you are interested in.

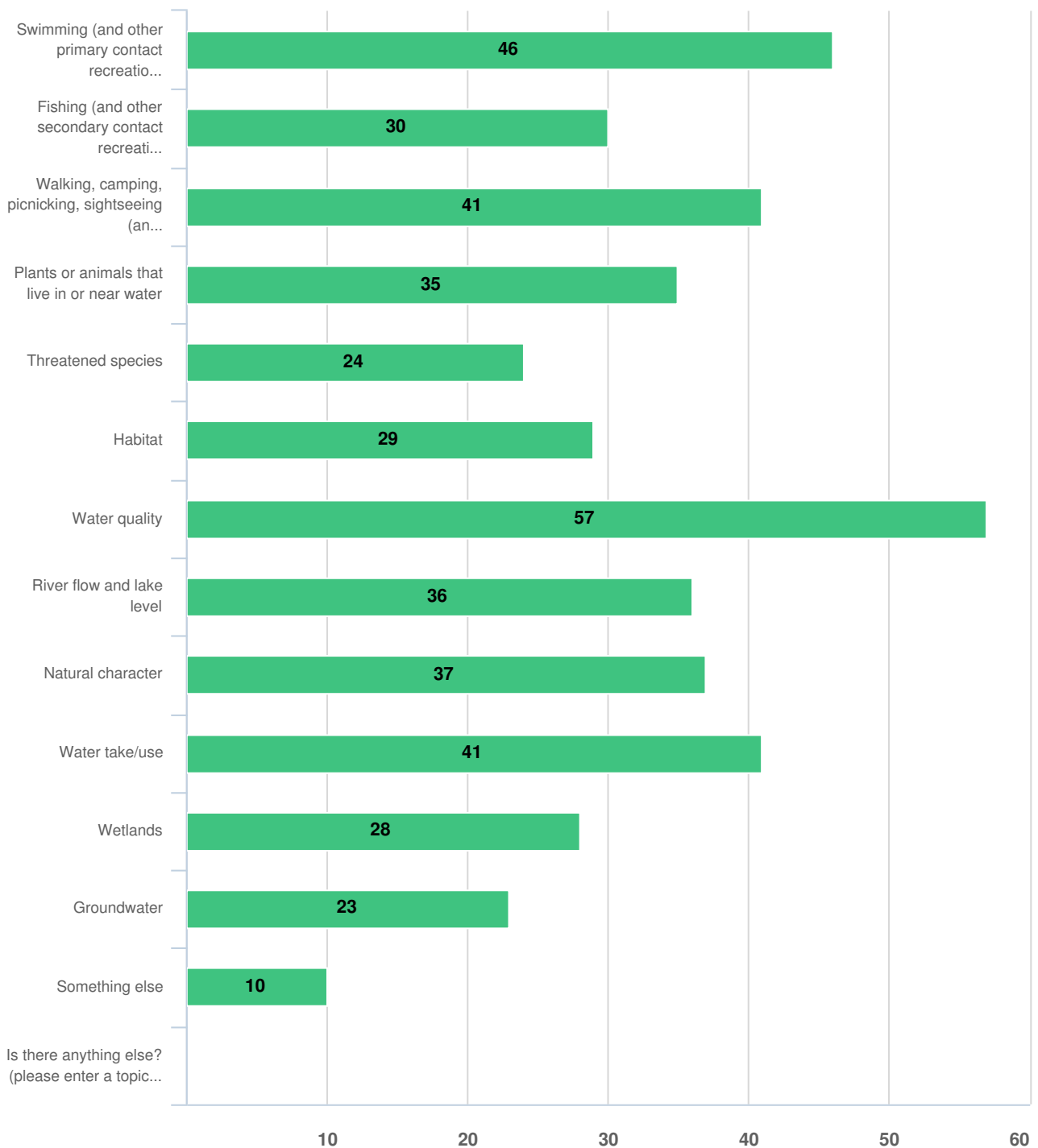
- Dunstan Rohe

Mandatory Question (68 response(s))

Question type: Dropdown Question

Comparing by: Select below the FMU or rohe you are interested in. For answers: Dunstan Rohe

Q2 Select the things that matter to you.



Comparing by:

Select below the FMU or rohe you are interested in.

- Dunstan Rohe

Mandatory Question (68 response(s))

Question type: Checkbox Question

Comparing by: Select below the FMU or rohe you are interested in. For answers: Dunstan Rohe

Q3 Regarding swimming (or other primary contact recreational water activities*), what matters to you?* Activities where your bo...



Optional question (46 response(s), 22 skipped)

Question type: Likert Question

Comparing by: Select below the FMU or rohe you are interested in. For answers: Dunstan Rohe

Q4 How has this been over the last 5 years?

Comparing by: Select below the FMU or rohe you are interested in.



Optional question (46 response(s), 22 skipped)

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

Anonymous

2/28/2022 02:15 PM

spiritual

Anonymous

3/01/2022 08:58 AM

I would like to see more rubbish traps put on culverts catching water from Road run off and more vigilance of industrial areas use of their hard surface run offs- ie making sure they clean sumps and paint notices that run offs drain to rivers etc

Anonymous

3/03/2022 08:45 AM

While I recognise the Manuherekia is not part of this Rohe, its water quality has an impact on our recreational use.

Anonymous

3/05/2022 03:27 PM

Too many willow trees on the river making swimming dangerous in sections

Anonymous 3/06/2022 09:41 PM	Many popular swimming areas now spoilt by the presence didimo and/or lagarosiphon. Lakes spoilt by presence of 'lake snow'. Hawea river devoid of life due to flow regime and didimo. Outlets from towns sewerage treatment plants discharging into waterways
ToddB 3/07/2022 10:12 PM	Lake Hayes is no longer enjoyable to swim in
Anonymous 3/09/2022 05:42 PM	Kawarau river has nutrient slime
Anonymous 3/11/2022 01:06 PM	Chemical / fertiliser run off particularly Lake Hayes
Anonymous 3/13/2022 07:05 AM	Manuherikia summer flows are too low due to irrigation being over allocated. Water quality in summer is average, often can't swim in the river.
Anonymous 3/14/2022 08:14 PM	N/a
Anonymous 3/14/2022 09:43 PM	Weed in Lake Dunstan
Anonymous 3/15/2022 08:21 PM	Chemicals sprayed into the water.
Anonymous 3/18/2022 05:12 PM	The contribution to nitrate levels in lakes is a worry. It appears to be ignored or not tested, the contribution from power boat activities on the lakes and nearby rivers. The majority of powerboats have exhaust systems directed directly into to the water. The use of catalytic converters on land based vehicles reduces this. Given that 100 litres of fuel could produce 100 grams of nitrogen oxide, one could see tonnes of nitrogen oxides introduced to the lakes each summer.
Anonymous 3/19/2022 09:53 AM	Freedom campers at Lowburn spoil access to water and past swimming areas.
Anonymous 3/21/2022 04:14 PM	Lack of fish ladders for eel / tuna movement past both The Clyde Dam & the Roxburgh Dam.
Anonymous 3/21/2022 04:54 PM	We need unlocked public toilets near waterways so people don't use our Fraser & Manuherikia Riversides as toilets . Eg the Fraser Domain has a locked public toilet .

Anonymous
3/22/2022 03:41 PM

I have already commented through various surveys and consultations over the last five years. This is getting repetitive, Difficult to see why there is another survey!!!~

Anonymous
3/23/2022 03:56 PM

Too much silt.

Anonymous
3/24/2022 07:13 PM

Lake weed

Anonymous
3/28/2022 11:48 AM

Connectivity/continuity of access is vital. The varying nature of the underlaying access ie fixed marginal strips/ movable marginal strips, Esplanade strips etc, often means that access along waterways is interrupted.

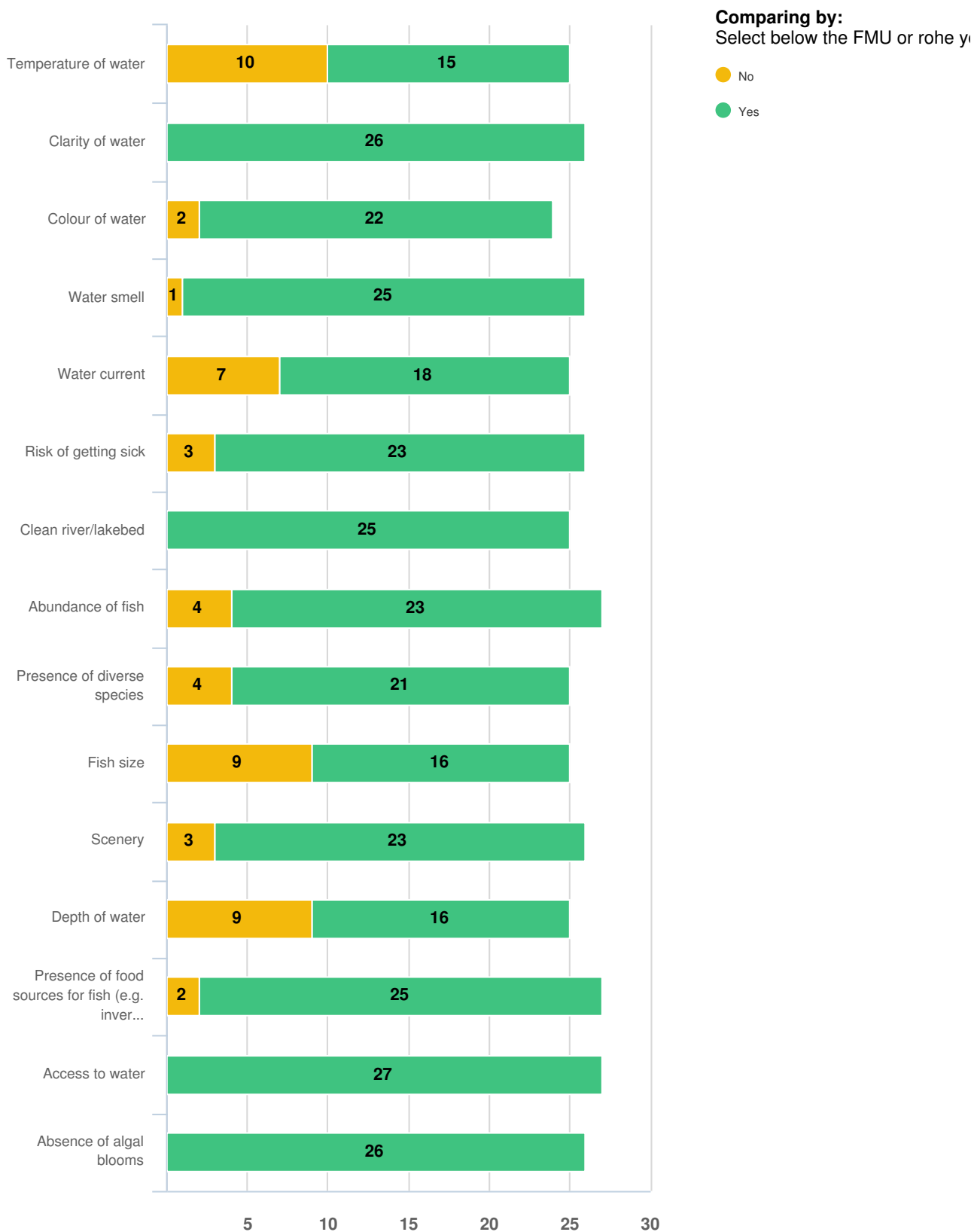
Optional question (20 response(s), 48 skipped)

Question type: Essay Question

Comparing by: Select below the FMU or rohe you are interested in.

For answers: Dunstan Rohe

Q6 Regarding fishing (and other secondary contact recreational water activities), what matters to you?* Activities where only y...



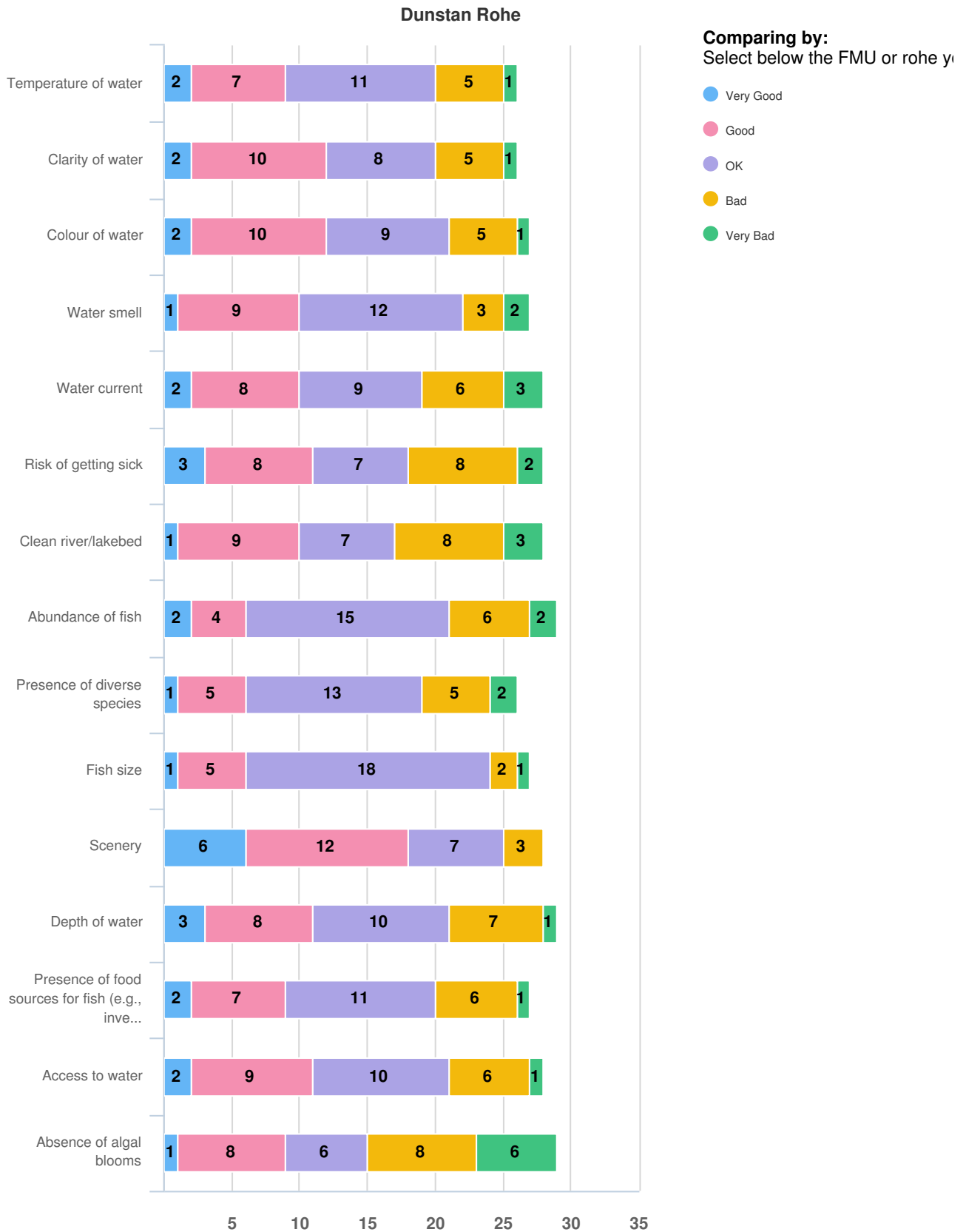
Optional question (29 response(s), 39 skipped)

Question type: Likert Question

Comparing by: Select below the FMU or rohe you are interested in. For answers: Dunstan Rohe

Q7 How has this been over the last 5 years?

Comparing by: Select below the FMU or rohe you are interested in.



Optional question (29 response(s), 39 skipped)

Optional question (5 response(s), 63 skipped)

Question type: Likert Question

Comparing by: Select below the FMU or rohe you are interested in. For answers: Dunstan Rohe

Q8 Are there any other important characteristics you can think of? Please list them below.

Anonymous

2/28/2022 07:15 PM

When I refer to abundance of fish I am talking about native. The trout population is to high and damaging native fish habitat and populations

Anonymous

3/01/2022 08:58 AM

More fencing around wetlands please

Anonymous

3/11/2022 01:06 PM

Contamination and run off from fertilisers from farms and especially golf courses

Anonymous

3/13/2022 10:03 AM

Didymo in the Upper Clutha River to Lake Dunstan is disgusting. In my lifetime I never thought I would see it in that condition.

Anonymous

3/14/2022 09:01 PM

Lake weed is an issue

Optional question (5 response(s), 63 skipped)

Question type: Essay Question

Comparing by: Select below the FMU or rohe you are interested in.

For answers: Dunstan Rohe

Q9 Regarding walking, camping, picnicking, sightseeing (and other non-contact recreational water activities), what matters to ...



Optional question (40 response(s), 28 skipped)

Question type: Likert Question

Comparing by: Select below the FMU or rohe you are interested in. For answers: Dunstan Rohe

Q10 How has this been over the last 5 years?

Comparing by: Select below the FMU or rohe you are interested in.



Optional question (39 response(s), 29 skipped)

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

Question type: Likert Question

Comparing by: Select below the FMU or rohe you are interested in. For answers: Dunstan Rohe

Q11 Are there any other important characteristics you can think of? Please list them below.

Anonymous

2/28/2022 07:15 PM

Same again, Native species of fish have been decimated for decades.

Anonymous

3/01/2022 08:58 AM

More supported community rubbish clean ups please IE free tip fees and perhaps Parks teams could take rubbish and weeds collected away.

Anonymous

3/03/2022 08:45 AM

The water quality from the Kawarau Gorge after a significant rain event directly impacts on colour and clarity of the Clutha Mata-au.

Anonymous

3/05/2022 03:27 PM

Again, proliferation of willows over the past 10 years has made access to the river difficult. A lot are falling over, some in the river and some on the banks making it dangerous for kids.

Anonymous

3/06/2022 09:41 PM

Disappointing to see didimo now present in most streams Some areas contaminated by wild fowl - ducks ,geese

Anonymous

3/21/2022 04:54 PM

Seeing riparian plantings and bugs and insects around is heartening .

Anonymous

3/22/2022 03:41 PM

Availability of adequate quantity and quality of drinking water. Protective measures in place for this, prevention of fuels spills etc. Storm water controls.

Optional question (7 response(s), 61 skipped)

Question type: Essay Question

Comparing by: Select below the FMU or rohe you are interested in.

For answers: Dunstan Rohe

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



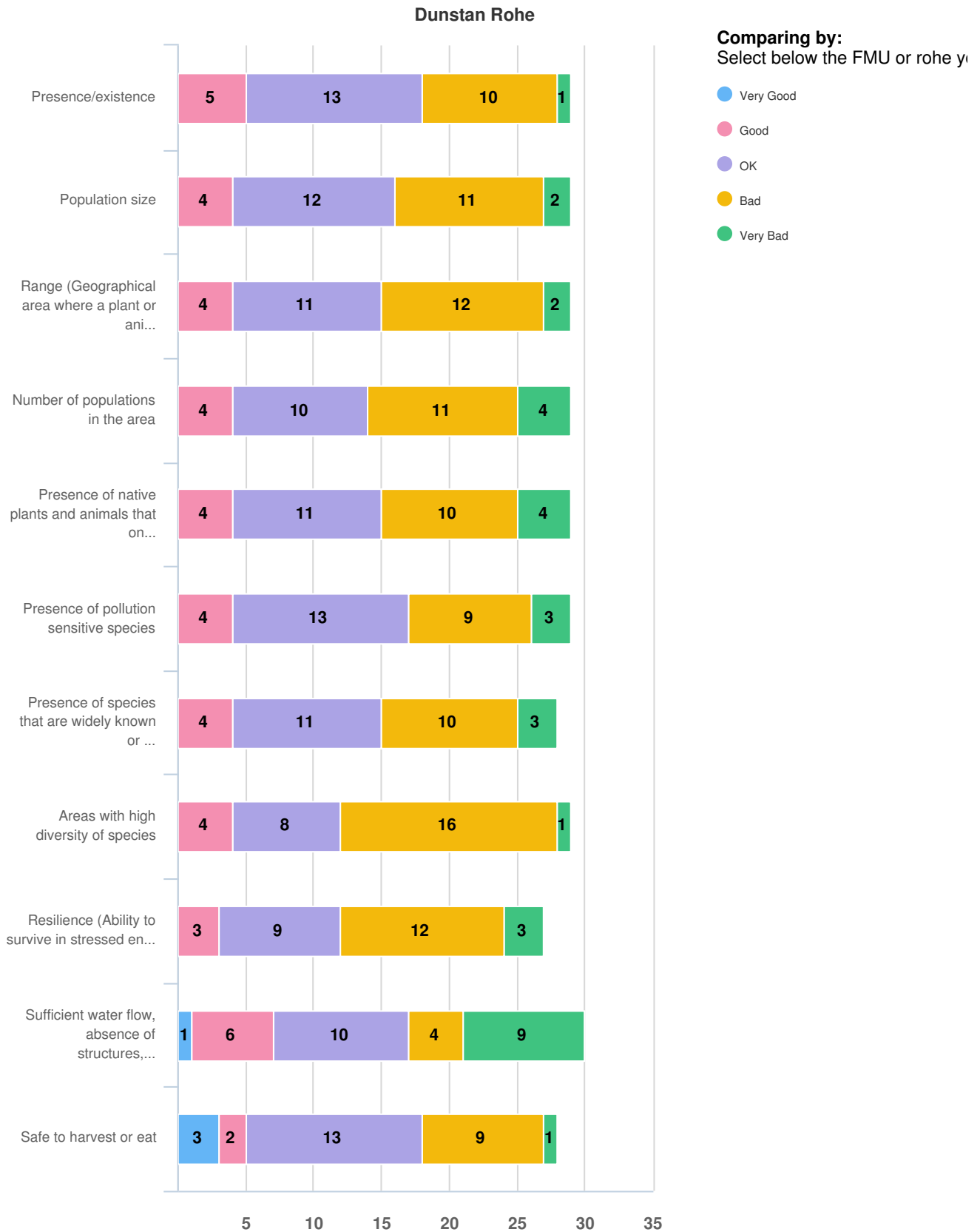
Optional question (34 response(s), 34 skipped)

Question type: Likert Question

Comparing by: Select below the FMU or rohe you are interested in. For answers: Dunstan Rohe

Q13 How has this been over the last 5 years?

Comparing by: Select below the FMU or rohe you are interested in.



Optional question (31 response(s) 37 skipped)

Q14 Are there any other important characteristics you can think of? Please list them below.

Anonymous

2/28/2022 07:15 PM

There is sufficient water. its the structure that are stopping some native species migrations. Intoduced species are causing most damage. Crack willow, lupin and trout

Anonymous

3/01/2022 08:58 AM

It would be great to educate us all about the plant species we have , should plant, and the benefits to the area they would bring

Anonymous

3/03/2022 07:17 PM

I am very concerned about the presence of Crack Willows down the Clutha. I have a wetland on my farm and the crack willows are going to eventually take it over totally. There is little point in me tackling these because they are so invasive and they are over represented all the way up the River toward Wanaka.

Anonymous

3/06/2022 05:23 PM

The lack of species in and around water is hardly helped by the ludicrous water takes from rivers like the Lindis and Cardrona and the fact that they pretty much dry up or flow only under the surface during the hotter months of the year due to the water being removed from them to maintain dairy and other water hungry farming methods

Anonymous

3/06/2022 09:41 PM

Increased riparian planting becoming noticeable some introduced fish species are having an impact on native fish species Storm water flow from urban areas is beginning to affect waterways

Anonymous

3/13/2022 10:03 AM

My feelings are that they are too many people this blocks off access to hunters and fishermen. Cycle tracks push duckhunters out of areas previously used.

Anonymous

3/14/2022 08:14 PM

N/a

Anonymous

3/21/2022 04:54 PM

As WAI Wanaka does around Lake Wanaka , we further or more environmentally aware groups throughout our Region , especially co-ordinating studies and riparian planting .

Anonymous

3/22/2022 03:41 PM

I an not in a postion to answer this question without surveys.

Optional question (9 response(s), 59 skipped)

Question type: Essay Question

Comparing by: Select below the FMU or rohe you are interested in.

For answers: Dunstan Rohe

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



Optional question (23 response(s), 45 skipped)

Question type: Likert Question

Comparing by: Select below the FMU or rohe you are interested in. For answers: Dunstan Rohe

Q16 How has this been over the last 5 years?

Comparing by: Select below the FMU or rohe you are interested in.



Optional question (21 response(s) 47 skipped)

Optional question (21 response(s), 11 skipped)

Question type: Likert Question

Comparing by: Select below the FMU or rohe you are interested in. For answers: Dunstan Rohe

Q17 Are there any other important characteristics you can think of? Please list them below.

Anonymous

3/01/2022 08:58 AM

More protective fencing needed please

Anonymous

3/01/2022 10:11 AM

Lake Dunstan does not support lizards, insect, or bird populations effectively as there is a lack of native habitats, vehicle damage and weed encroachment

Anonymous

3/03/2022 08:45 AM

Difficult to answer this section as I do not know what threatened species currently exist or could exist in this area.

Anonymous

3/14/2022 08:14 PM

No

Anonymous

3/22/2022 03:41 PM

Not in a position to answer without scientific surveys

Optional question (5 response(s), 63 skipped)

Question type: Essay Question

Comparing by: Select below the FMU or rohe you are interested in.

For answers: Dunstan Rohe

Q18 Regarding habitats*, what matters to you? *These are environments which supports fish or other life that lives in or near t...



Optional question (28 response(s), 40 skipped)

Question type: Likert Question

Comparing by: Select below the FMU or rohe you are interested in. For answers: Dunstan Rohe

Q19 How has this been over the last 5 years?

Comparing by: Select below the FMU or rohe you are interested in.



Optional question (26 response(s), 42 skipped)

Optional question (no response), re-appears

Question type: Likert Question

Comparing by: Select below the FMU or rohe you are interested in. For answers: Dunstan Rohe

Q20 Are there any other important characteristics you can think of? Please list them below.

Anonymous

2/28/2022 07:15 PM

Not all parts of rivers and stream in their native state had shade and plant cover. Its a mix with braids being clear of vegetation.

Anonymous

3/01/2022 08:58 AM

Waterways traversing private land need regulating to clean them up and stop unsavoury run off polluting them and adding sediment

Anonymous

3/01/2022 10:11 AM

There is shade but from introduced, invasive willows. No native plants to provide shade

Anonymous

3/03/2022 08:45 AM

Sediment build-up because of the hydro dams is concerning.

Anonymous

3/06/2022 05:23 PM

4wds in river beds reducing the ability of species to get a foot hold and causing erosion driving up and down river banks. Wash from jet boats on rivers causing erosion and stirring up sediment and stopping plants from getting a foothold.

Anonymous

3/06/2022 09:41 PM

Increased didimo and lagarosiphon in lakes and rivers is impacting on aquatic life

Anonymous

3/09/2022 08:55 PM

any cover is weed or non native, willow infested.

Anonymous

3/13/2022 10:03 AM

A lot of these factors are nature and are out of man's control!!

Anonymous

3/14/2022 05:52 PM

Mixed use activities in the right area to maximise the resource.

Anonymous

3/14/2022 08:14 PM

No

Anonymous

3/21/2022 04:54 PM

We need more native plantings along waterways throughout Otago.

Anonymous

3/22/2022 03:41 PM

Not in a position to address - needs scientific survey work, Integrity

Anonymous

Kawarau arm has been a mess

3/27/2022 03:01 PM

Optional question (13 response(s), 55 skipped)

Question type: Essay Question

Comparing by: Select below the FMU or rohe you are interested in.

For answers: Dunstan Rohe

Q21 Regarding water quality*, what matters to you?*The health and well-being of the water, including chemical, physical, and bi...



Optional question (55 response(s), 13 skipped)

Question type: Likert Question

Comparing by: Select below the FMU or rohe you are interested in. For answers: Dunstan Rohe

Q22 How has this been over the last 5 years?

Comparing by: Select below the FMU or rohe you are interested in.



Optional question (49 response(s), 19 skipped)

Optional question (no response), no impact

Question type: Likert Question

Comparing by: Select below the FMU or rohe you are interested in. For answers: Dunstan Rohe

Q23 Are there any other important characteristics you can think of? Please list them below.

Anonymous 2/28/2022 07:15 PM	Poor question to confuse people by not separating native fish from trout. Presence of fish should only be native. trout are predators destroying habitat.
Anonymous 3/01/2022 10:03 AM	This is all very subjective ! Nutrient levels is a science , not a tick box exercise . Monitoring over decades is very important. Remember we as a planet are transitioning from one ice age to the next .
Anonymous 3/03/2022 07:17 PM	I am concerned about the quantity of silt that is building up in the bed of Lake Dunstan. This will be coming down every time there is a water event. And it will not be helped by land which is unable to absorb rainfall (because it is chemically degraded) and is not covered.
Anonymous 3/06/2022 09:41 PM	Risk of elevated nutrient levels from urban sewerage treatment outflow. Contaminated storm water flows from urban areas
ToddB 3/07/2022 10:12 PM	Current water quality of Lake Hayes is a real shame
Anonymous 3/13/2022 07:05 AM	Intensive dairying in the Manuherikia catchment adversely impacts water quality.
Anonymous 3/13/2022 10:03 AM	A lot of these factors that are being mentioned cannot be changed nature is nature. For instance we have no control of floods, the weather, the temperature of the water. Nothing seems to be done over didymo. Access to waterways is a concern there is not enough access to them.
Anonymous 3/14/2022 05:52 PM	Enabling land use like mining where appropriate.
Anonymous 3/14/2022 08:14 PM	○
Anonymous 3/14/2022 09:03 PM	Accessibility of rivers - streams on private land are becoming increasingly difficult to access for recreation.

Anonymous

3/15/2022 08:21 PM

Spraying chemicals into the water is very bad.

Anonymous

3/18/2022 05:12 PM

The contribution to nitrate levels in lakes is a worry. It appears to be ignored or not tested, the contribution from power boat activities on the lakes and nearby rivers. The majority of powerboats have exhaust systems directed directly into to the water. The use of catalytic converters on land based vehicles reduces this. Given that 100 litres of fuel could produce 100 grams of nitrogen oxide, one could see tonnes of nitrogen oxides introduced to the lakes each summer.

Anonymous

3/21/2022 04:35 PM

Gold mining can co exist with the natural environment.

Anonymous

3/24/2022 07:13 PM

Lake weed lagasporin is increasing this year. Stevenson's Arm, and environ. Shouldn't be there absolutely appalled to see the increase this March. Stop the use of fertilizers near the lake immediately. Look at all the irrigators. (they are just feeding the weed) it's appalling.

Anonymous

3/25/2022 09:06 AM

lake or river surrounds - usable and free from undersirable effects

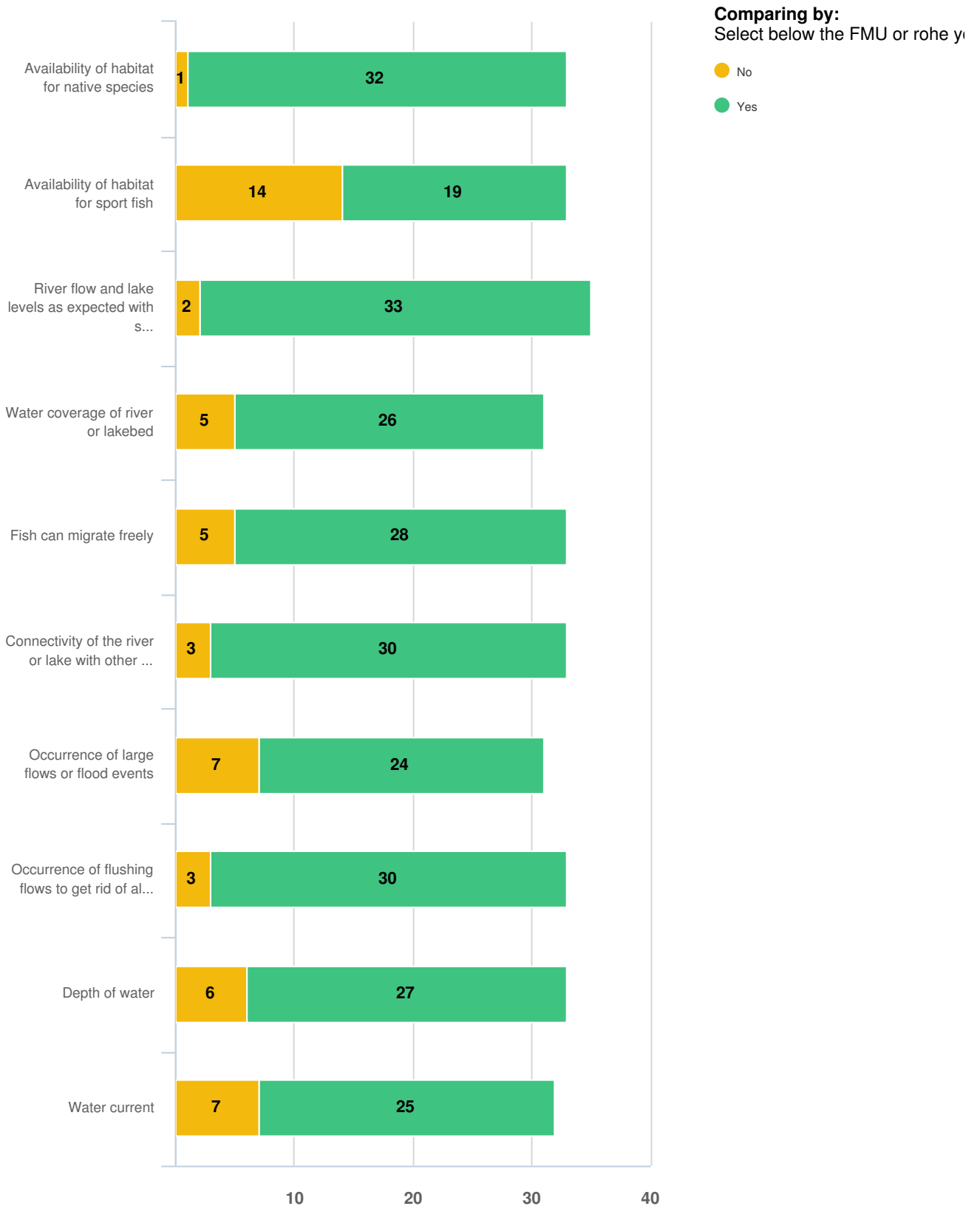
Optional question (15 response(s), 53 skipped)

Question type: Essay Question

Comparing by: Select below the FMU or rohe you are interested in.

For answers: Dunstan Rohe

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



Optional question (35 response(s), 33 skipped)

Question type: Likert Question

Comparing by: Select below the FMU or rohe you are interested in. For answers: Dunstan Rohe

Q25 How has this been over the last 5 years?

Comparing by: Select below the FMU or rohe you are interested in.



Optional question (33 response(s) 35 skipped)

Optional question (9 response(s), 59 skipped)

Question type: Likert Question

Comparing by: Select below the FMU or rohe you are interested in. For answers: Dunstan Rohe

Q26 Are there any other important characteristics you can think of? Please list them below.

Anonymous

2/28/2022 07:15 PM

There maybe a need to regulate flows to stop habitats being to ideal for trout and their breeding and structure to block their access. There maybe other options to remove them, research should be promoted.

Anonymous

3/01/2022 08:58 AM

Can flood plains be planted out where it is suitable to do so please and a sign put up about its purpose?

Anonymous

3/06/2022 05:23 PM

The seasonal variations would be far smaller if the water was taken from the waterways at a sensible level but this is clearly not the case under current regulations.

Anonymous

3/09/2022 05:42 PM

Nutrient slime

Anonymous

3/09/2022 08:55 PM

dirty dairying and taking manuhherikia water

Anonymous

3/13/2022 07:05 AM

As mentioned above - the over allocation of the manuhherikia for irrigation results in low summer flows. River loses its natural character and the water quality is poor.

Anonymous

3/21/2022 04:35 PM

Gold dredging can co exist in the natural environment, and not change any of the above.

Anonymous

3/22/2022 03:41 PM

Another leading question - needs scientific consider input

Anonymous

3/28/2022 11:48 AM

This is hard to complete as some rivers such as the Clutha are good whilst others such as the Cardrona, Lindis and Manaherikea, have clear problems with water flow, habitat and algal blooms

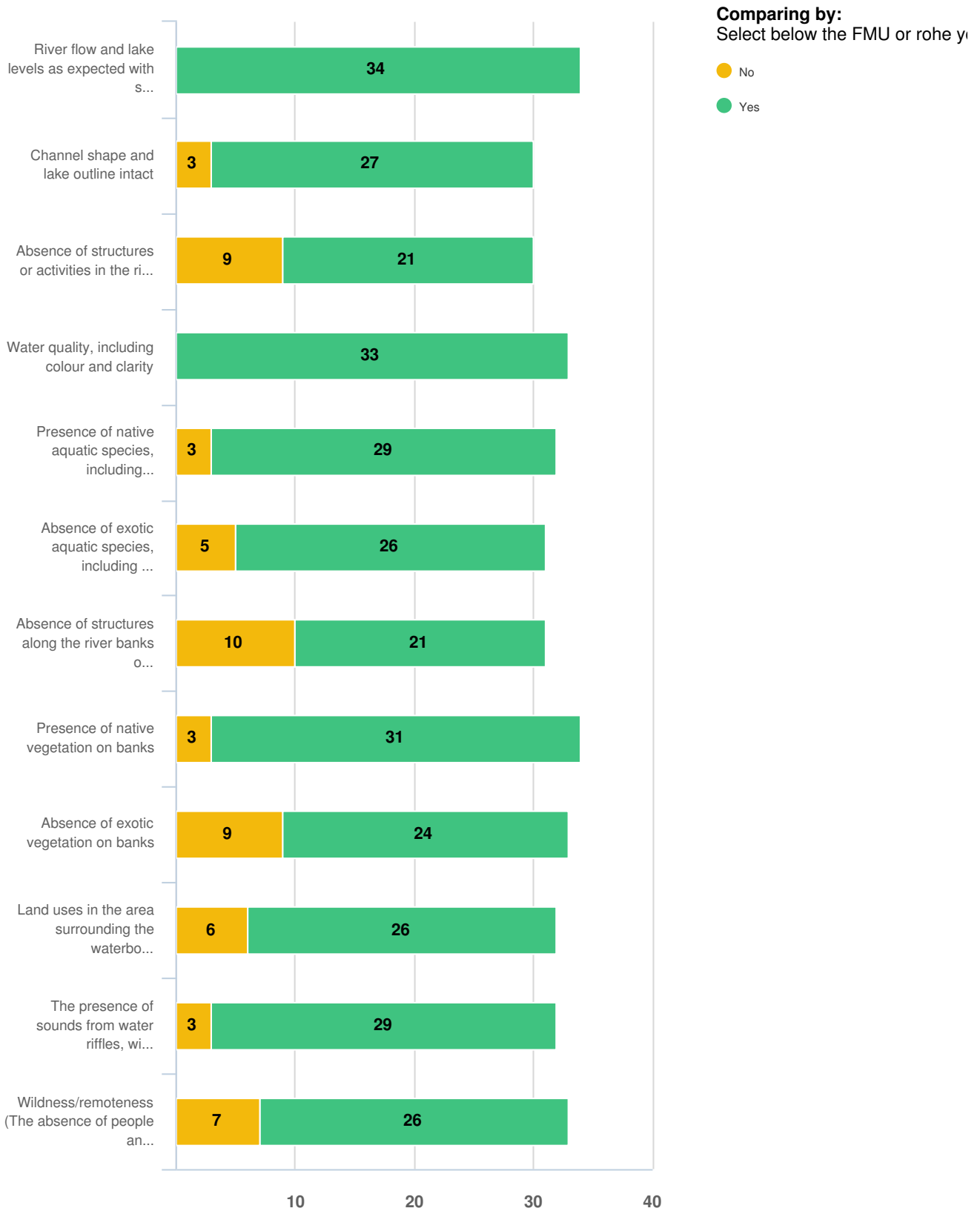
Optional question (9 response(s), 59 skipped)

Question type: Essay Question

Comparing by: Select below the FMU or rohe you are interested in.

For answers: Dunstan Rohe

Q27 Regarding natural character*, what matters to you? *The presence of natural processes, such as the action of rivers or wave...



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

Question type: Likert Question

Comparing by: Select below the FMU or rohe you are interested in. For answers: Dunstan Rohe

Q28 How has this been over the last 5 years?

Comparing by: Select below the FMU or rohe you are interested in.



Optional question (33 response(s) 35 skipped)

Optional question (6 response(s), 62 skipped)

Question type: Likert Question

Comparing by: Select below the FMU or rohe you are interested in. For answers: Dunstan Rohe

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

Anonymous

3/01/2022 08:58 AM

Limit any more Roads to rivers. Some old tracks for cars should be closed down

Anonymous

3/06/2022 05:23 PM

Otago seems to be very behind some regions of NZ in moderating land use around waterways with a real lack of riparian fencing and planting and heaps of exotic species effectively choking some waterways and preventing succession of native species and natural movement of waterways. It's especially disappointing to see development on the floodplain of the Cardrona River in Albert Town which will change the flood characteristics of the river making their effects more severe.

Anonymous

3/09/2022 05:42 PM

Absence of sediment

Anonymous

3/09/2022 08:55 PM

wheres the native flora and native birdsong

Anonymous

3/14/2022 08:14 PM

No

Anonymous

3/27/2022 03:01 PM

Weeds around the lake are bad

Optional question (6 response(s), 62 skipped)

Question type: Essay Question

Comparing by: Select below the FMU or rohe you are interested in.

For answers: Dunstan Rohe

Q30 Regarding water take/use*, what matters to you?*The taking of water for a variety of uses, including human consumption, sto...



Optional question (41 response(s), 27 skipped)

Question type: Likert Question

Comparing by: Select below the FMU or rohe you are interested in. For answers: Dunstan Rohe

Q31 How has this been over the last 5 years?

Comparing by: Select below the FMU or rohe you are interested in.



Optional question (38 response(s), 30 skipped)

Optional question (no response), no impact

Question type: Likert Question

Comparing by: Select below the FMU or rohe you are interested in. For answers: Dunstan Rohe

Q32 Are there any other important characteristics you can think of? Please list them below.

Anonymous

2/28/2022 04:36 PM

Soils of Otago / Horticulture / Viticulture / Others should be moved to the higher areas with more growing degree days. This was stated by soil scientist Dr. Gary Becroff many years ago, sorry I cant find the references. For example; The lower Earnsclough flats are 800 growing degree days, the hill above the old Earnsclough station is 1300 growing degree days. The Otago regional council should consider this with water permits, from existing water permits, for any retired farmland as part of the tenure review, wasteland, or other lands as a partnership with interested groups to support their interests in growing new research crops, within the Otago Land Basement.

Anonymous

2/28/2022 06:19 PM

Clarity about long term access

Anonymous

2/28/2022 07:15 PM

Applications for new takes for household use should be under same restrictions as new commercial or production take.

Anonymous

3/01/2022 08:58 AM

The water take for commercial agricultural and horticultural use needs to be revised and modernised practice implemented

Anonymous

3/01/2022 10:03 AM

This list of questions are insulting to your constituents. Of course these are all important BUT you miss the obvious " FOOD a PRODUCTION" .

Anonymous

3/03/2022 08:45 AM

The continued increase of demand for economic purposes; allowing land-based activities that are too wate-intensive for this climate and environment

Anonymous

3/03/2022 07:17 PM

I feel we should distinguish between uses of water as a means of adding value (for example by application to crops) and water taken for sale.

Anonymous

3/09/2022 05:42 PM

Minimum flows too low

Anonymous

3/09/2022 08:55 PM

Taste the Alexandra and Hawea water

Anonymous 3/13/2022 10:03 AM	We are ex farmers. We were driven out of our farm over new irrigation requirements that were supposed to be introduced 2021 but basically haven't been. It was not going to be viable under the new rules for us to carry on farming because of residual flow requirements. And the costs of change. We monitored our use of water for 5 years + but others who did not still received water..... We are bitter and twisted about what was supposed and what has not happened! We sold our farm it has ruined a lot of people's lives.....
Anonymous 3/14/2022 08:14 PM	No
Anonymous 3/15/2022 11:17 PM	Reliable amounts of water should be allowed for use, but not the overuse of the sources. A minimum flow should be decided, say 50% of usual flow. In dry times a lower limit must be decided and enforced, so that below a certain flow, no water should be taken. If more water is needed it means that the wrong sort of farming/ industry is in place.
Anonymous 3/18/2022 02:34 PM	Environmental concerns MUST ALWAYS outweigh any commercial concerns!
Anonymous 3/19/2022 08:39 AM	Alluvial gold mining has played an extensive and significant role in Otago's History and should be recognised as such. Responsible alluvial gold mining (and suction dredging) can co-exist with the natural environment, and this should be reflected in the water plan policies and rules.
Anonymous 3/21/2022 04:35 PM	Suction dredge mining will have less than minor effect on any of the above.
Anonymous 3/22/2022 10:17 AM	being tied to mt barker flow rates affects us adversely during a season (winter) when other irrigators dont require water usage.
Anonymous 3/22/2022 03:41 PM	Another leading question that needs a lot of consideration.
Anonymous 3/25/2022 06:26 AM	Providing for the economic well-being of our area
Anonymous 3/27/2022 03:01 PM	Water for irrigation is excessive. Good to store water in fans etc at times of high flow

Optional question (19 response(s), 49 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 conditi...



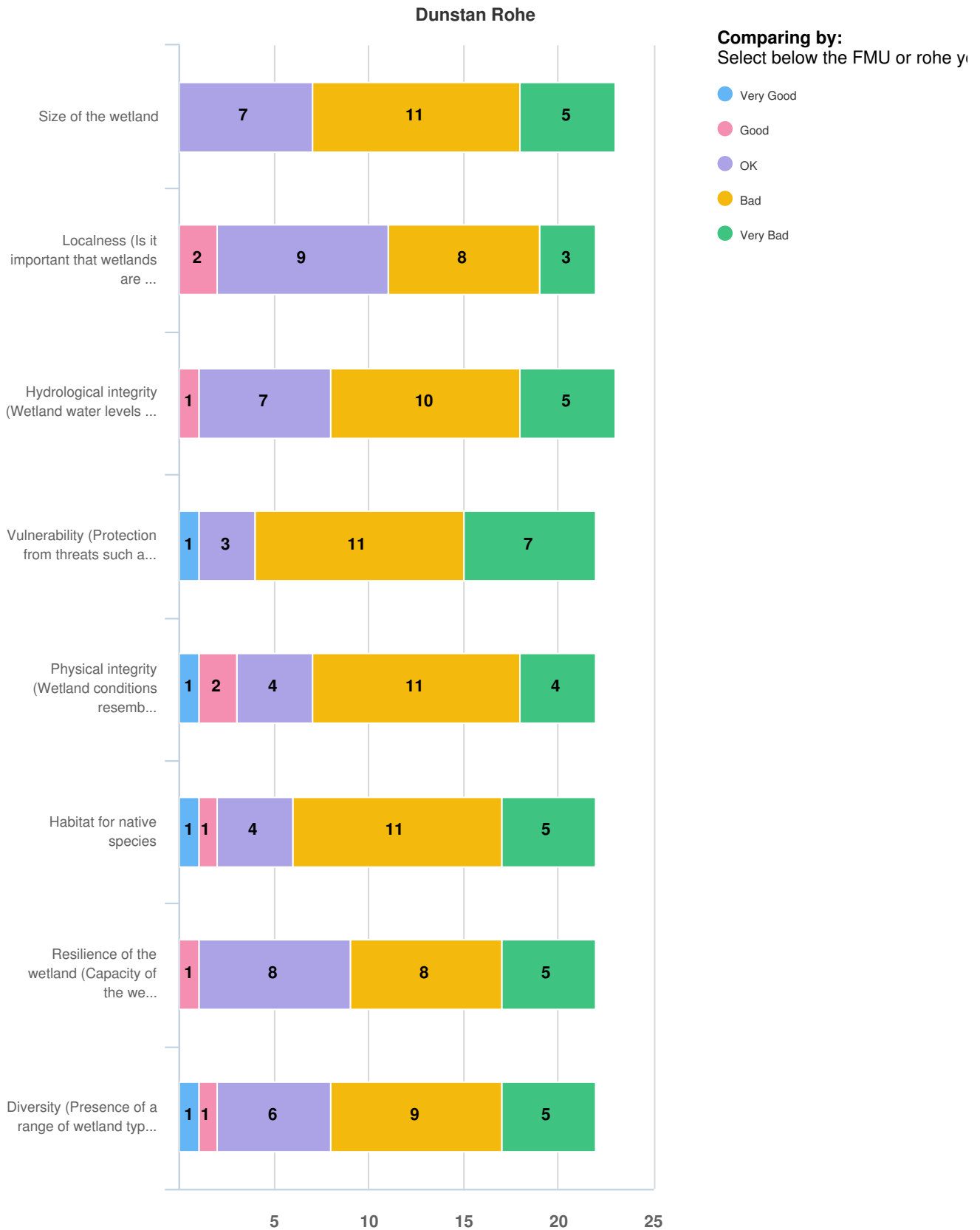
Optional question (27 response(s), 41 skipped)

Question type: Likert Question

Comparing by: Select below the FMU or rohe you are interested in. For answers: Dunstan Rohe

Q34 How has this been over the last 5 years?

Comparing by: Select below the FMU or rohe you are interested in.



Optional question (23 response(s) 45 skipped)

Optional question (26 response(s), 76 skipped)

Question type: Likert Question

Comparing by: Select below the FMU or rohe you are interested in. For answers: Dunstan Rohe

Q35 Are there any other important characteristics you can think of? Please list them below.

Anonymous

3/01/2022 08:58 AM

Re take the former drained land and recreate more wetlands!

Anonymous

3/01/2022 10:11 AM

Bendigo wetland has high volume of Lagarosiphon instead of native aquatic plants

Anonymous

3/03/2022 08:45 AM

Heads of rivers that have been channelled for agriculture use. Not all need returned to their former state but remnants are needed to preserve ecosystem structures.

Anonymous

3/03/2022 07:17 PM

The presence of Crack Willows has led to a degradation along water ways. There seems no overall plan from the ORC to eliminate this pest. The Willows will eventually take over all other native species present at the water's edge.

Anonymous

3/06/2022 05:23 PM

Management of farming practices adjacent to wetland areas. Minimizing stock levels and restricting types of stock that influence the inputs in to wetlands

Anonymous

3/09/2022 08:55 PM

where have they gone

Anonymous

3/21/2022 04:14 PM

We need a Mata-Au / Clutha River group looking after our whole River and all it's tributaries, especially the Manuherekia River. We need a whole catchment group incorporating Wai Wanaka and all the aspects of this groups study and work including planting's for the whole Mata-Au / Clutha River area and not just around the Lake Wanaka area.

Anonymous

3/21/2022 04:54 PM

Wetlands should not be able to be drained.

Anonymous

3/27/2022 03:01 PM

Need more wetlands. So destroying them.

Optional question (9 response(s), 59 skipped)

Question type: Essay Question

Comparing by: Select below the FMU or rohe you are interested in.

For answers: Dunstan Rohe

Q36 Regarding groundwater*, what matters to you?*Groundwater is the water that has infiltrated the soil beyond the surface and ...



Optional question (21 response(s), 47 skipped)

Question type: Likert Question

Comparing by: Select below the FMU or rohe you are interested in. For answers: Dunstan Rohe

Q37 How has this been over the last 5 years?

Comparing by: Select below the FMU or rohe you are interested in.



Optional question (20 response(s) 48 skipped)

Optional question (5 response(s), 63 skipped)

Question type: Likert Question

Comparing by: Select below the FMU or rohe you are interested in. For answers: Dunstan Rohe

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

Anonymous

3/01/2022 10:03 AM

Subjective questions get subjective answers ! Where are the facts ?

Anonymous

3/03/2022 08:45 AM

Our changing water use is impacting on these water systems. I really rate the process of water treatment via alluvial soils and would like to see the quality of this water retained/regained.

Anonymous

3/13/2022 09:14 AM

Disagree with water bottling factories.

Anonymous

3/19/2022 08:39 AM

Alluvial gold mining has played an extensive and significant role in Otago's History and should be recognised as such. Responsible alluvial gold mining (and suction dredging) can co-exist with the natural environment, and this should be reflected in the water plan policies and rules.

Anonymous

3/22/2022 03:41 PM

It is the job go the Regional Council to provide these answers with some integrity.

Optional question (5 response(s), 63 skipped)

Question type: Essay Question

Comparing by: Select below the FMU or rohe you are interested in.

For answers: Dunstan Rohe

Q39 Let us know if there is anything else you would like to tell us.

Anonymous

2/28/2022 04:20 PM

<http://www.growingsolutions.co.nz/> I would like to ask the Otago regional council if it or other government departments have land available to lease long term for community groups to 1. complete a property evaluation report. 2. Agree to conditions of the lease i.e. water use, landscape, other issues to grow new researched crops that will enhance their wellbeing. The above webpage outlines details on how this community program for all ages could happen.

Anonymous

2/28/2022 04:36 PM

The Otago Regional Council should consider The Old NZED Camp for a community workshop, community gardens, engineering workshop, services groups training Centre, Defence, Civil Defence Rohe support teams, for all ages as being a part of

the council strategy to support the Long term Plan.

Anonymous

2/28/2022 06:19 PM

There questions are pretty rubbish. Too general

Anonymous

3/01/2022 08:58 AM

Thanks for the opportunity to give feedback. Please advertise your survey more!

Anonymous

3/01/2022 10:03 AM

I'm already receiving On stream communications. This survey is designed to produce a predetermined outcome and consequently is unacceptable. For example ; social media , mainstream media and many politicians bombard the public with the premise " our water , our waterways are polluted and unsafe " . The survey supports this thesis . How can you begin to believe you are providing leadership or looking for raw unbiased responses . Have you thought that perhaps a question along the line " do you believe in education to improve the water, food relationship or governmental regulations?" There is no reference to national economic outcomes if we reduce irrigation to produce food and overseas funds so necessary to sustain our current standard of living ? This is why I make the observation the survey is subjective ! In fact the survey perpetuates the myth " farmers are environmental pirates, singularly focussed on profits! ". In the past 150 years the planet has gone from 80% of the population being hungry or starving till today it's 20% hungry or starving . This is a fantastic outcome = success . Farmers and scientists working together to produce a sustainable outcome. But we're not finished , we owe it to the worlds peoples to keep Increasing food production,which will reduce the birth rate and the planet's population may start to decline and importantly reduce a range of environmental challenges. Thank you.

Anonymous

3/03/2022 07:17 PM

I have added my comments above under other characteristics which I appreciate was not necessarily the appropriate place for these comments, but I wanted to make sure that they were captured and considered.

Anonymous

3/06/2022 05:23 PM

Unfortunately I think that water is very poorly managed in the upper clutha district and I have seen marked degradation in some of the waterways in the area from increased land use and what appears to be a complete lack of controls. Far more emphasis needs to be put on protecting the water we are so privileged to have, this could be fencing waterways, riparian planting, stopping farmers burning vegetation around creeks and rivers, reducing water takes and re thinking land use accordingly, encouraging rainwater collection through financial incentives, education over water use, the list is endless. I regularly take the children down to the mouth of the Cardrona river and it is so disappointing to see

how the river is affected by land use further upstream, whether it is clearing of land for development or farming or just bleeding the river dry and causing toxic algal blooms every summer. This really needs to change.

Anonymous
3/09/2022 08:55 PM

Greed has destroyed our rivers and wetlands. We should be looking after and protecting our waters and water life. We should be proud of our areas of natural beauty and act like we are

Anonymous
3/12/2022 08:05 PM

Stop wasting money on this kind of think and just keep the rates down.

Anonymous
3/13/2022 07:05 AM

The minister for the environment should probably sack the regional council for incompetence around their management of the Manuherikia

Anonymous
3/13/2022 10:03 AM

We were told at one of many local Lowburn water meeting by the ORC that we would be getting 60 percent of what we were previously drawing for irrigation purposes, if we were lucky! We were irrigating approx 100 hectares at times of the year we did not have sufficient water because of the environmental factors (heat, dry) so that requirement made it near on impossible! We spent a lot of money to try to solve the issue but basically to no avail. Sold our property. Now it's subdivided into lifestyle blocks. We would still be farming if not for the what we were told and what has not happened.....as you will read we are devastated.

Anonymous
3/14/2022 05:52 PM

Humans and human activity are part of the natural environment and need to be considered as such. This plan should recognise mining and extractive industries and provide for them where effects can be managed. Suction dredging does occur with near zero localised effects.

Anonymous
3/14/2022 09:01 PM

I could not select the Manuherekia Rohe at the start so used Dunstan Rohe instead.

Anonymous
3/14/2022 09:03 PM

Gold dredging is an excellent seasonal job or recreational activity! I'm worried that the ORC might not care about small scale suction dredge mining in Otago rivers, and might wrongly associate this form of mining with water pollution. I am a miner and I care about the natural environment - a lot of the fun of dredging is being outside and enjoying mother nature! I also think that irrigation in the Dunstan area needs to be looked at closely, as water quality is closely linked to flow levels. It is upsetting to see intensive dairy farming in some parts of the Dunstan and Upper Clutha areas, which is highly unnatural, and only achieved by large-scale irrigation.

Anonymous

3/15/2022 08:21 PM

Stop Boffa Miskell from spraying chemicals into Lake Dunstan.

Anonymous

3/15/2022 11:17 PM

70 years ago, there was adequate water for everyone, for recreation and business. Today it is obvious that this is not so as various types of farming and industry are taking too much and damaging the waterways and environment. Somewhere between these 2 states is a satisfactory level of use for everyone. Nobody will get entirely what they want, but the current levels of deterioration cannot continue.

Anonymous

3/18/2022 05:12 PM

The contribution to nitrate levels in lakes is a worry. It appears to be ignored or not tested, the contribution from power boat activities on the lakes and nearby rivers. The majority of powerboats have exhaust systems directed directly into the water. The use of catalytic converters on land based vehicles reduces this. Given that 100 litres of fuel could produce 100 grams of nitrogen oxide, one could see tonnes of nitrogen oxides introduced to the lakes each summer.

Anonymous

3/19/2022 08:39 AM

Alluvial gold mining has played an extensive and significant role in Otago's History and should be recognised as such. Responsible alluvial gold mining (and suction dredging) can co-exist with the natural environment, and this should be reflected in the water plan policies and rules.

Anonymous

3/19/2022 09:53 AM

I don't know what FMU/Rohe means.(just reread & now know. Should be in English I think.) Why is this a partnership. I thought 'we are one'. I don't like Freedom campers in the hundreds along the lakeside at Lowburn.If allowed the area should be much smaller for say just 15 camper vans.tThe large number ruin our lakeside for other people and look very ugly and leave mess. Also they should be asked to pay(\$20 a night, honestyBox) for use of toilets and camp site. I have ticked a couple of boxes incorrectly and can't change them? So it's nota very accurate survey. Sorry

Anonymous

3/21/2022 04:14 PM

We need our ORC to do the work the Regional Council is supposed to do . If Councillor(s) challenge both the CEO of the ORC and / or the workers of the ORC there's a huge waste of time and money by all concerned. We need our ORC to be able to get on wth the job it has to do.

Anonymous

3/21/2022 04:35 PM

Suction dredging and gold mining in general can co-exist with the natural environment.

Anonymous

3/22/2022 03:41 PM

Already subscribe to the newsletter. The ORC needs to start acting on scientific evidence and not self interest.

Anonymous

Please limit nitrogen & fertilizer use with irrigators in the Wanaka

3/24/2022 07:13 PM

lake area. I've been boating here for 25 years and this year is the worst.

Anonymous

3/27/2022 03:01 PM

Prioritise environmental affects over private commercial interests

Anonymous

3/27/2022 04:13 PM

we found the survey difficult to answer at times eg having irrigation and bottled water in the same question possibly leading to a biased anwser

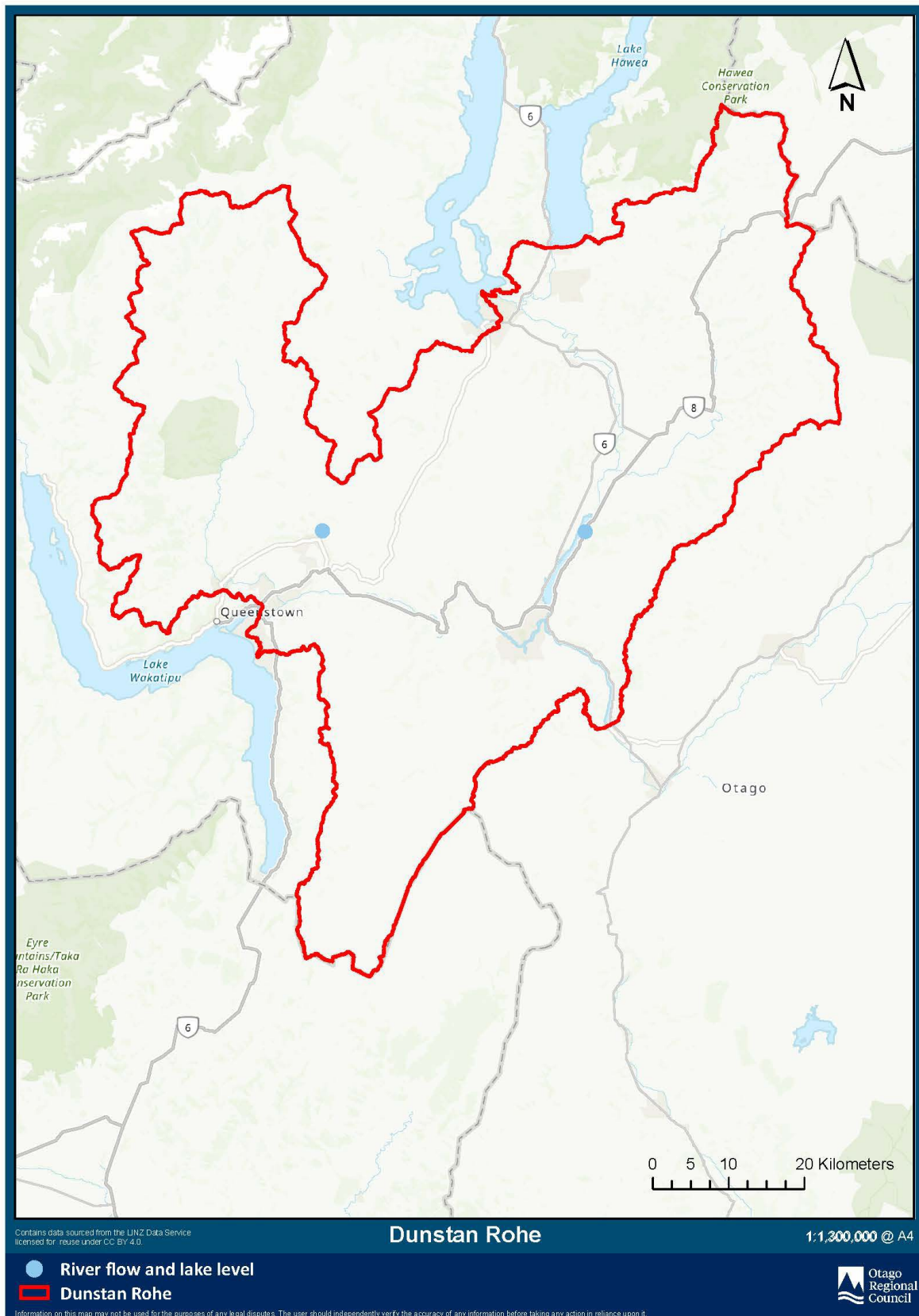
Optional question (25 response(s), 43 skipped)

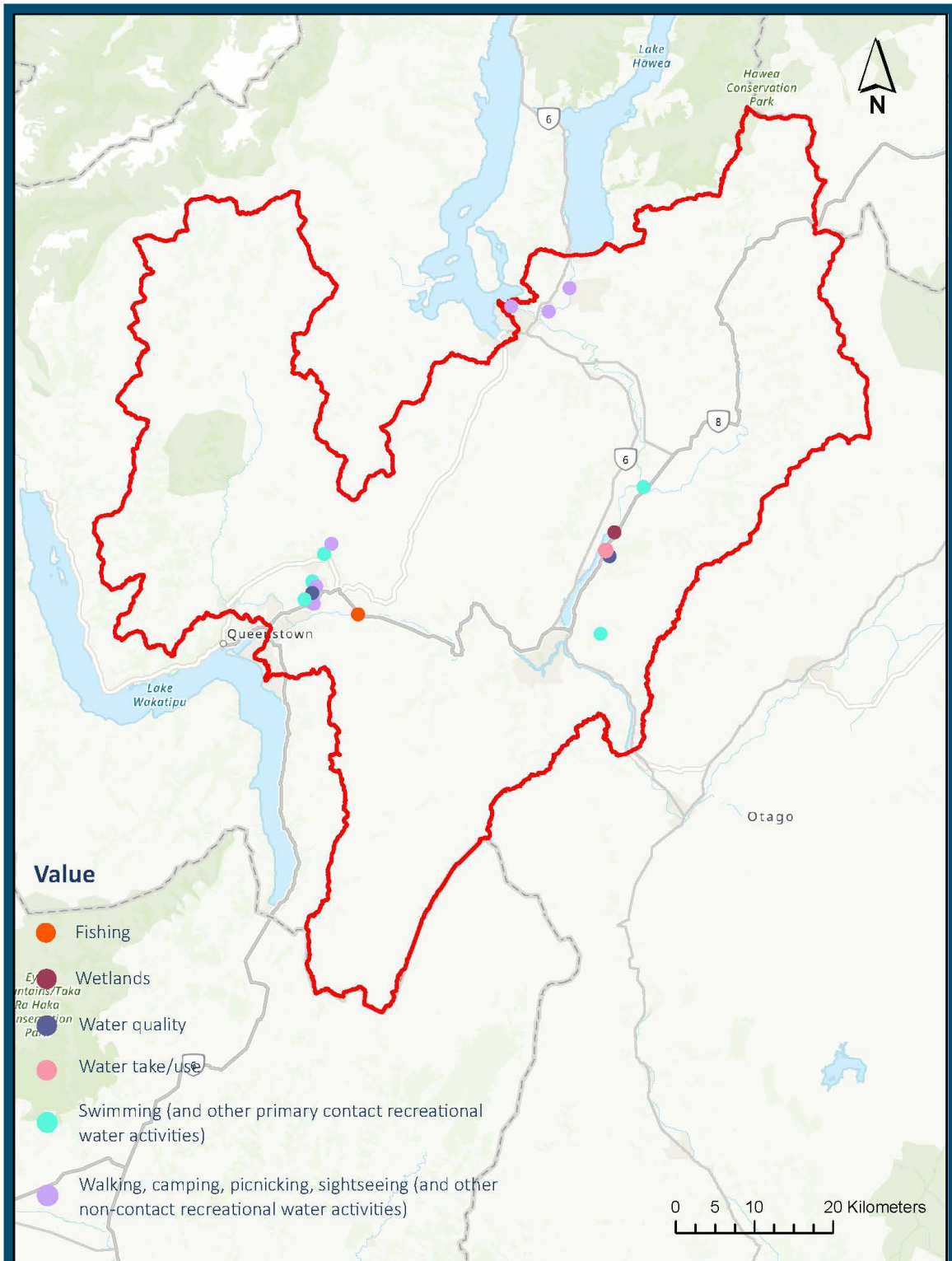
Question type: Essay Question

Comparing by: Select below the FMU or rohe you are interested in.

For answers: Dunstan Rohe

Appendix 2: Locational data





Contains data sourced from the LINZ Data Service licensed for reuse under CC BY 4.0.

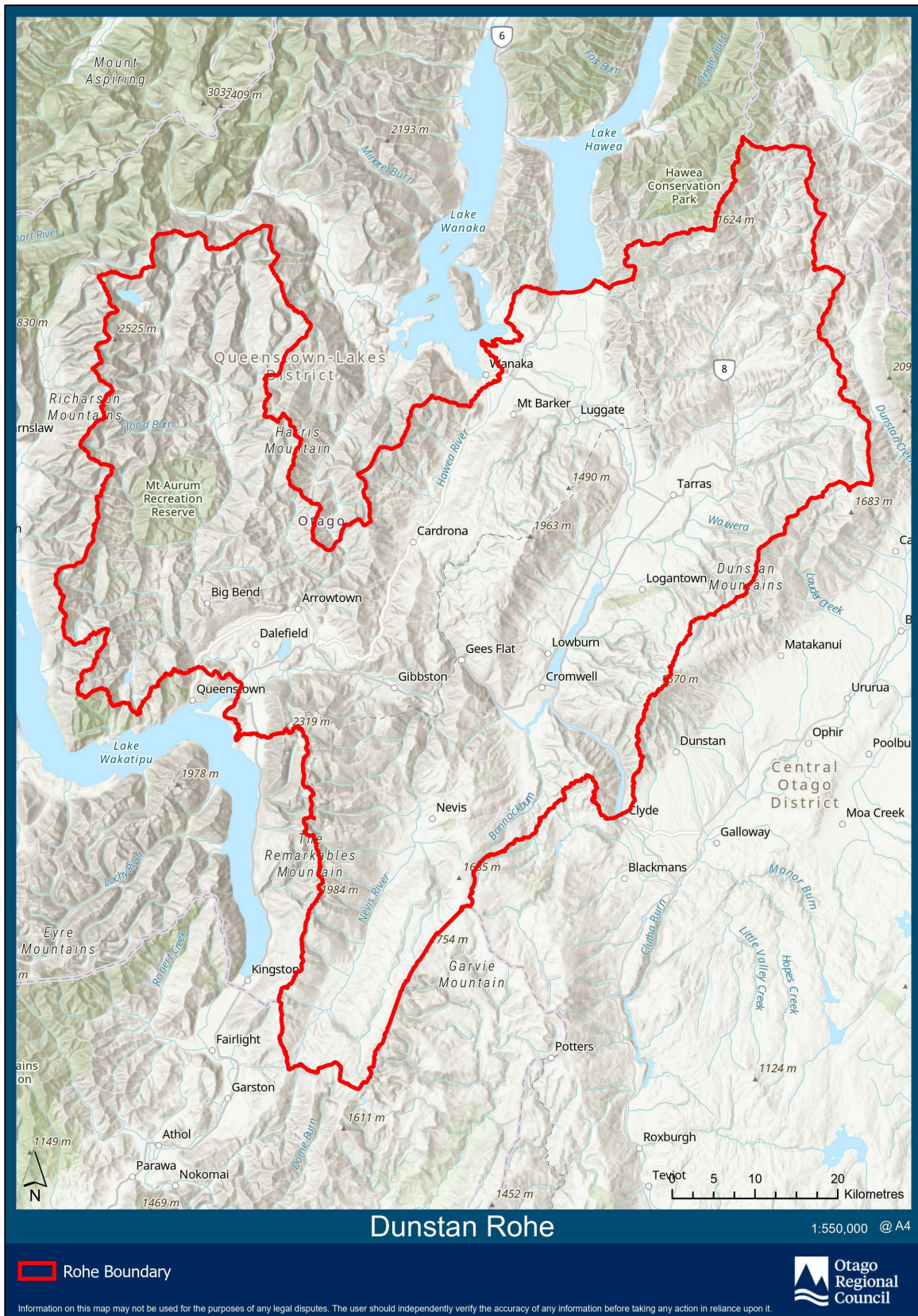
Dunstan Rohe

1:1,300,000 @ A4



Information 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 upon it.

Appendix 3: Map of Dunstan rohe



Appendix 4: Map of Clutha Mata-Au FMU



Appendix 5: Example of online survey

1. Select below the FMU or rohe you are interested in. *

Choose an option

2. Select the things that matter to you. *

- | | |
|--|--|
| <input type="checkbox"/> Swimming (and other primary contact recreational water activities) | <input type="checkbox"/> Fishing (and other secondary contact recreational water activities) |
| <input type="checkbox"/> Walking, camping, picnicking, sightseeing (and other non-contact recreational water activities) | <input type="checkbox"/> Plants or animals that live in or near water |
| <input type="checkbox"/> Threatened species | <input type="checkbox"/> Habitat |
| <input type="checkbox"/> Water quality | <input type="checkbox"/> River flow and lake level |
| <input type="checkbox"/> Natural character | <input type="checkbox"/> Water take/use |
| <input type="checkbox"/> Wetlands | <input type="checkbox"/> Groundwater |
| <input type="checkbox"/> Something else | |

3. 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.

	Yes	No
Temperature of water	<input type="radio"/>	<input type="radio"/>
Depth of water	<input type="radio"/>	<input type="radio"/>
Clarity of water	<input type="radio"/>	<input type="radio"/>
Colour of water	<input type="radio"/>	<input type="radio"/>
Water smell	<input type="radio"/>	<input type="radio"/>
Water current	<input type="radio"/>	<input type="radio"/>
Risk of getting sick	<input type="radio"/>	<input type="radio"/>
Clean river/lakebed	<input type="radio"/>	<input type="radio"/>
Scenery	<input type="radio"/>	<input type="radio"/>
Absence of rubbish	<input type="radio"/>	<input type="radio"/>
Access to water	<input type="radio"/>	<input type="radio"/>
Absence of algal blooms	<input type="radio"/>	<input type="radio"/>

4. How has this been over the last 5 years?

	Very Bad	Bad	OK	Good	Very Good
Temperature of water	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Depth of water	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Clarity of water	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Colour of water	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Water smell	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Water current	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Risk of getting sick	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Clean river/lakebed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Scenery	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Absence of rubbish	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Access to water	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Absence of algal blooms	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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

Please add your comment here...

Appendix 6: Example of paper survey

Land and Water Regional Plan Consultations

YourSay | Otago Regional Council



Swimming

Activities where your body or face are often underwater, wetted by spray, and where you are likely to swallow water.

Location field

Where do you swim in freshwater? Please list locations

Regarding swimming, what matters to you?			How has this been over the last 5 years?				
	Yes	No	Very bad	Bad	OK	Good	Very Good
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 think of?							

Land and Water Regional Plan Consultations

YourSay | Otago Regional Council



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

Regarding fishing, what matters to you?			How has this been over the last 5 years?				
	Yes	No	Very bad	Bad	OK	Good	Very Good
Temperature of water							
Clarity of water							
Colour of water							
Water smell							
Water current							
Risk of getting sick							
Clean river/lakebed							
Abundance of fish							
Presence of diverse species							
Fish size							
Scenery							
Depth of water							
Presence of food sources for fish (e.g., invertebrates)							
Access to water							
Absence of algal blooms							
Are there any other important characteristics you can think of?							

Appendix 7: Example of online mapping tool

