SUBMISSION ON OTAGO REGIONAL COUNCIL
Regional Policy Statement

To:

Otago Regional Council

Private Bag 1954, Dunedin 9054

Name of Submitter: **Shaping Our Future Inc.**

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Please accept our apologies for the lateness of this submission which we hope will be accepted.

Shaping Our Future wish to be heard.

This is a submission on the Otago Regional Council proposed Regional Policy Statement and applies to the Queenstown Lakes District where Shaping Our Future currently operates.

This submission is in respect of the polices that apply to **Freshwater**

Shaping Our Future is an independent, apolitical, non-profit organisation created in 2011 to give the people of our community an opportunity to shape their future. We work with the community to create a long-term vision and roadmap for the future as our district continues to go through rapid change, even with the recent disruption of Covid-19.

Shaping Our Future is governed by a volunteer board made up of committed members of the community, elected in rotation by the members at each AGM.

The following submission is based on information gathered from the community in a number of community forums and community task force reports, most notably:

1. **Shaping Our Future Wakatipu Freshwater Report 2021**
2. **Shaping Our Future Upper Clutha Freshwater Report 2019**

Shaping our Future has held water forums for the Upper Clutha and Wakatipu catchments. These involved 1400 participants. The Upper Clutha task force report was instrumental in enabling the establishment of Wai Wanaka. The Whakatipu task force report is at its final stage of completion.

Recommendations from the task forces included establishment of key stakeholder groups, a need for increased education, awareness accountability and transparency around standard setting and reporting of water quality and use, prioritised action plans for degraded rivers and wetlands, and the installation of fish ladders.

We submit that the policies within the Otago Regional Policy Statement should address the outcomes detailed in key submission points 1-5 below.

Shaping Our Future Submission Recommendations

Water : Key submission 1.

Shaping Our Future urges the ORC to establish funding and a group of Kai Tahu, key experts, local, regional and central government, key stakeholders, and community members to follow through the recommendations contained in the Shaping our Future Wakatipu Water report and prepare a plan of direct community and stakeholder actions.

Water : Key submission 2.

Shaping Our Future recommend that ORC establish and implement a Wakatipu Freshwater Management Plan that provides the guidance to deliver the communities expected outcomes for a heathy freshwater system. Examples of outcomes are:

a. **Wetland re-generation, protection and expansion.**
b. **Continuation of appropriate riparian planting.**
c. **Reduced contamination from urban and rural activities.**
d. **Establishment of a habitat renewal and re-stocking programme for native aquatic species (eels, bully, galaxiids).**
e. **Development of education programmes for all parties in the Wakatipu basin with delivery of this to the local schools as part of EOC curriculums and community education forums.**

Water : Key submission 3.

Shaping Our Future recommends that the ORC draw up a list of degraded or threatened rivers and wetlands across the region, prioritise these for action, and identify appropriate measures and strategies to be implemented to repair the damage done and protect the waterways from future degradation.

Water : Key submission 4.

Shaping Our Future suggests that the ORC produce monthly 'catchment newsletters' that bring together relevant information - to include:

a. **water quality test results against standards/targets**
b. **water takes against consented amounts**
c. **water flows against minimum targets**
d. **biological health of the waterways ie how well are they supporting aquatic life**
e. **updates on projects and programmes to monitor and improve water quality**
f. **updates on implementation of catchment management plans**
g. **encouragement of community engagement with catchment management**

Water : Key submission 5.

Shaping Our future recommends that the ORC fund investigation of the provision of infrastructure for fish passage an all waterways where dams and other infrastructure may impede the diurnal and seasonal movement of fish species.

Attachment 1: Wakatipu Water report

Shaping our Future Wakatipu Water Report 2020/21

Image Credit: paddlequeenstown.co.nz

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EXECUTIVE SUMMARY

In April 2018 Shaping our Future held public forums in Queenstown and Wanaka on the topic of freshwater in the Queenstown Lakes District. Over 220 responses were gathered through public forum and online submission across the district. Just under half directly related to the Wakatipu Basin. In addition, over 800 primary and secondary school pupils shared their views on the challenges, priorities and ideal future of freshwater. The workshop results are contained in the

Shaping our Future formed a Queenstown freshwater volunteer taskforce with representatives from local community interest groups and residents who are interested in a sustainable and healthy future for freshwater. The taskforce benefitted from the input of experts in different areas to help understand the issues and current situation to prepare the following report.

Freshwater plays a vital role in the economic, environmental and social well-being of the District. There is an urgent need for the development of an active, community inclusive water management process, supported by appropriate levels of research to better understand the catchments and aquatic ecosystems in the Wakatipu Basin.

This report acknowledges the challenges associated with freshwater management, growing community concern and the time it takes for actions to show results.

This report provides a number of recommendations for further action. The critical recommendation is for the formation of a new group comprised of key stakeholders that is tasked with developing a Wakatipu Freshwater Management Plan.

WAKATIPU FRESHWATER VISION

The Wakatipu communities' vision for the future is below as is the community's summary from the initial consultation. They identified the needs of our freshwater as a priority and it is encompassed into two parts

Wakatipu Freshwater Vision

All water:	The community:
• supports and sustains life and wellbeing • is resilient • can exist in its natural state	• are consciously and actively engaged with, responsible for and proud of our water • benefits from it – well being, access, recreation, health and scenic beauty, economic • conserves, protects, respects the water • review, reflect and respond to what the water needs

The vision is further clarified with "Resilient" referencing the infrastructure that conveys it and its "natural state" representing its flow and journey through the water cycle.

RECOMMENDATIONS

The recommendations within this report have been developed as steps towards achieving the communities' vision for the Wakatipu

Freshwater is complex, each body of water has its own special features that require a mix of scientific and expert knowledge with community input in order for it to be looked after.

This report makes the following key recommendation:

KEY RECOMENDATION

Establish funding and a group of Kai Tahu, key experts, local, regional and central government, key stakeholders and community members to follow through the recommendations contained in this report and prepare a plan of direct community and stakeholder actions to protect our freshwater for generations to come.

A local example of this is Wai Wanaka

DETAILED RECOMMENDATIONS – THE WATER

The following are a list of recommendations that the taskforce has identified need undertaking to achieve the vision

1. Natural physical and chemical state and trends of water in the Wakatipu is understood by statutory bodies (Regional and District Councils, Department of Conservation and other governmental agencies including the Southern District Health Board).

2. Define what a "healthy" freshwater system is, within the Wakatipu basin.

3. Establishment of a robust, expanded, nationally comparable research and monitoring process for the lakes and rivers of the Wakatipu Basin to provide an understanding of:
    - Current lake / river water quality today and over time.
    - Water flows in all seasonal / climate condition.
    - Identify freshwater systems within the area ie what is going in / where is it going / is it leaving?
    - Modelling to understand and manage inputs / outputs / contaminants and the impact they may have in the future.
    - Understanding of agriculture impact / land use.
    - Understanding Urban and Rural Lifestyle impact/Land use
    - Providing an overall picture of the Wakatipu basins "state of play" – coordinate open source accessible information on quality / quantity / eco-system balance and develop a "Freshwater system health Score/value" or similar measure that would measure and provide instant information on the freshwater systems health.

- With the creation of the monitoring system develop mitigation/intervention/management or other action plans to maintain freshwater health

4. All sources of contamination and the full range of contaminants identified, monitored and managed. All water bodies meet effective freshwater health limits.

5. Coordinate and Conduct an extensive suite of regular water quality and flow testing and protect/control land use in catchment areas containing drinking water sources.

6. Co-ordinated monitoring of water abstraction, lake levels and river flows. Setting of optimum (not minimum) flows and levels to ensure health of water bodies.

7. Develop and implement a program to return degraded rivers and wetlands to a healthy natural state including:
   - Establishment of a 'buffer zone' along all waterways with riparian planting and where possible exclusion of stock.
   - Allowance for flood plains, natural changes in course and sediment build up
   - Urban stormwater and runoff is treated and incorporation of Low impact design guidelines are implemented
   - Engage and create education programs for the community and legislators and users

8. Fish ladders/Passage for native fish are installed at dams and manmade obstructions to reinstate natural breeding/spawning patterns. Preventing pest and introduced fish species from accessing the same waterways would aid in protection of the native species.

DETAILED RECOMMENDATIONS – THE COMMUNITY

1. Establish a formal process for ORC, QLDC and Department of Conservation and any other legislative authority or local industry (that is intrinsically reliant on the Wakatipu basin) to work closely with the community and its formal representatives to effectively manage and monitor freshwater quality including run-off systems and managing land development with ongoing monitoring of potential affects/impacts. An effective, efficient process with clear accountability and management actions will result in legislation and regulation that is research based with clear standards and accountability for all stakeholders.

2. Establish a working group to consider how to develop and implement changes and develop a Wakatipu Fresh water management plan, that supports the values, needs and wellbeing of communities and our environment

3. Establish and implement a Wakatipu Freshwater Management Plan based on the outcomes of the above research and investigations that provides the guidance to deliver the communities expected outcomes for a heathy freshwater system. Examples of outcomes are suggested below:
   - Wetland re-generation, protection and expansion.
   - Continuation of appropriate riparian planting.
   - Reduced contamination from urban and rural activities.

- Establishment of a habitat renewal and re-stocking programme for native aquatic species (eels, bully, galaxiids).
- Development of education programmes for all parties in the Wakatipu basin with delivery of this to the local schools as part of EOC curriculums and community education forums.

4. Establishment of a robust, expanded, nationally comparable research and monitoring process for the lakes and rivers of the Wakatipu Basin to provide an understanding of:
    - Current lake / river water quality today and over time.
    - Water flows in all seasonal / climate conditions.
    - Identify freshwater systems within the area ie what is going in / where is it going / is it leaving?
    - Modelling to understand and manage inputs / outputs / contaminants and the impact they may have in the future.
    - Understanding of agriculture impact / land use.
    - Providing an overall picture of the Wakatipu – co-ordinated accessible information on quality / quantity / eco-system health
    - Develop a healthy freshwater system score/value and based on the healthy freshwater definition develop milestones/targets/programs/legislation for restoring the areas of concern to healthy systems.

5. Water based tourism activities and commercial activity on the shores / banks of the waterways are included and engaged in freshwater management and have minimal to positive impact whilst providing the opportunity for the community to interact, connect and value the freshwater.

6. Wastewater (sewage, urban, agricultural and industrial) discharges are managed through consents and required to be treated to an extent which enables the receiving water bodies and / or land to be unaffected in regard to natural quality. Cumulative effects of discharges from an area and not just a singular discharge point must be considered as part of this as well as the capacity and health of the receiving environment

7. Mahinga Kai are restored. Rivers and Lakes support a balanced diversity of native and game fish with pest species eliminated.

8. The use of water must support the wellbeing of our communities and our environment, including the water itself. Therefore, the Otago Regional Council and the Queenstown Lakes District Council should develop rules and policies to ensure water is allocated and managed in a way that recognises the social, environmental, cultural and economic effects of the way it is valued and used.

9. Co-ordinated *Education and Awareness Plan* for freshwater - driven by national government directives and Regional and Local Authorities, supported by the community to ensure localised relevance - to inform residents, businesses and visitors.

Key short-medium term areas for education and awareness include:

- The impact of water use
- Contaminants entering freshwater systems e.g. stormwater contamination, fertilizer, development runoffs, urban wastewater discharges, etc.
- Opportunities, education and engagement on ways to positively impact on the local freshwater systems
- Transparency in information, understanding of information that exists and what research is needed to inform management decisions.
- Opportunities and education for community to connect, interact, appreciate and value freshwater and its biodiversity in its natural healthy state.

10. Transparency of water information and easy access for all parties (including the public).
    - Via open source information portals specific to the regions freshwater
11. Water sensitive Urban Design Policy developed and implemented by QLDC / ORC eg Wellington[1]

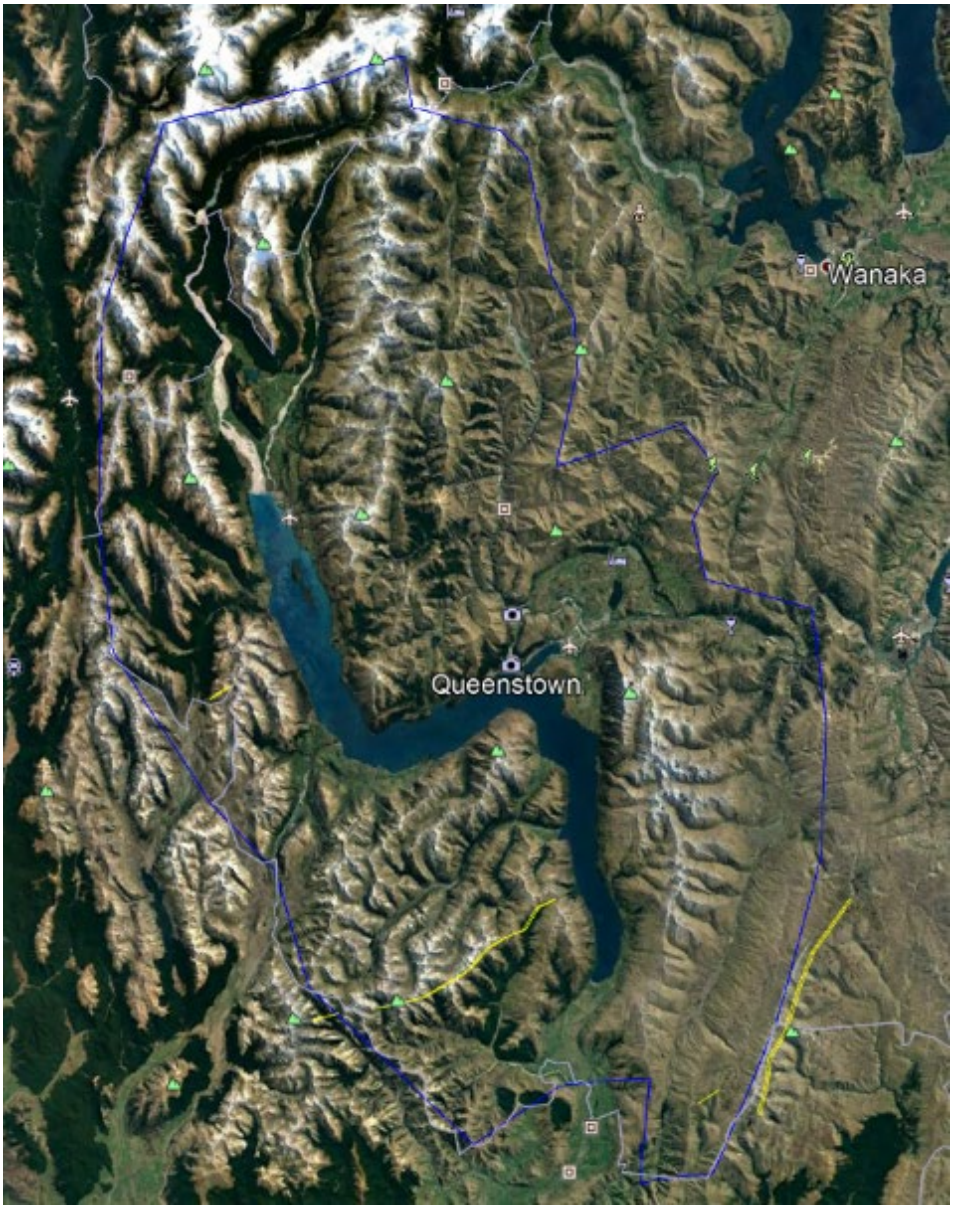
    Infrastructure and development changes take time to implement and having a design policy encourages and ensures the protection of the waterways including:

    - Achieving 100% treatment of wastewater / stormwater with no contamination entering waterways.
    - Implementation of widespread water recycling systems – both residential and commercial eg rainwater capture systems, recycling, greywater systems
    - Leadership from agencies, individuals and organisation to utilise global best practice and learning from recent local applications eg Camp Glenorchy, Kirimoko
    - Assist in preparing for climate change eg heavy rainfall events.

[1] https://wellington.govt.nz/~/media/services/environment-and-waste/environment/files/wsud-guide.pdf

THE WAKATIPU REGION

- The Queenstown report covers the catchment of Lake Wakatipu, Arrow River and Lake Hayes and the Kawarau River down to the QLDC/CODC territorial boundary.
- This area is approximately 550,490 Hectares
- This report should be read in conjunction with the neighbouring Upper Clutha Freshwater Report. The waterways, and communities are connected and together make up the Queenstown Lakes District.
- The region encompasses High country farms, agricultural farms of all types and breaths, recreational activities, urban and rural development and housing and townships.
- The area is known for its iconic landscapes and tourism and property development/Construction industries.
- The area has undergone significant growing pains over the last decade and these continue and are likely to continue for some time.



LEGISLATION AND REGULATION

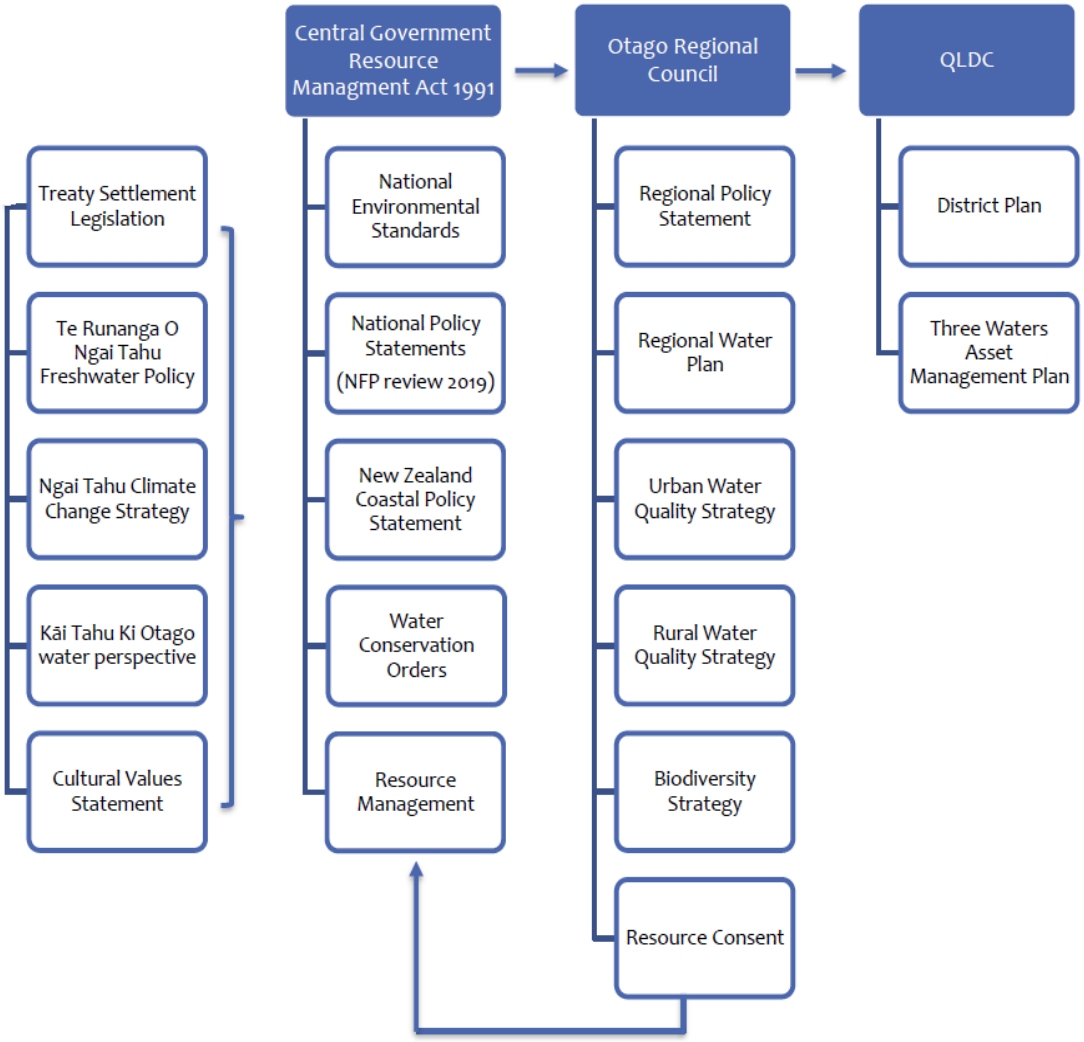
Legislation and regulation around freshwater is complex. Central Government set the direction through standards and policies e.g. National Environment Standards, National Policy Statement for Freshwater Management and the Resource Management Act.

Regional Council are responsible for regional plans, research and monitoring. The local council are responsible for local infrastructure and both are responsible for activities affecting water that take place on the land.

The taskforce reviewed Kāi Tahu Ki Otago water perspective, Te Runanga O Ngai Tahu Freshwater Policy and Ngai Tahu Climate Change Strategy and support the values and actions contained within those documents.

Summary of Legislation/ Regulation in New Zealand (note this is a summary list and not exhaustive)

The RMA and regional and district plans are subject to amendments and change and prove a moving target with a state of uncertainty as to the future requirements. Current Legislative responsibilities are contained below.



WAKATIPU BASIN FRESHWATER VISION 2040

WHAT OUR WATER NEEDS

For freshwater in the Wakatipu basin to ***exist in its natural state, support and sustain life and wellbeing and demonstrate resilience*** it is necessary to look at what is impacting on our waterways today and what actions can be taken to achieve the vision.

During the public forum the community undertook a range of exercises to identify the current challenges, priorities, values and potential solutions for freshwater. The results have been used to guide this report. The community forum summary document is attached at the end of this document.

Four key themes were identified and generally agreed as of priority:

- water quality (including eco-system health) and quantity,
- strategic management,
- community culture and
- research and monitoring.

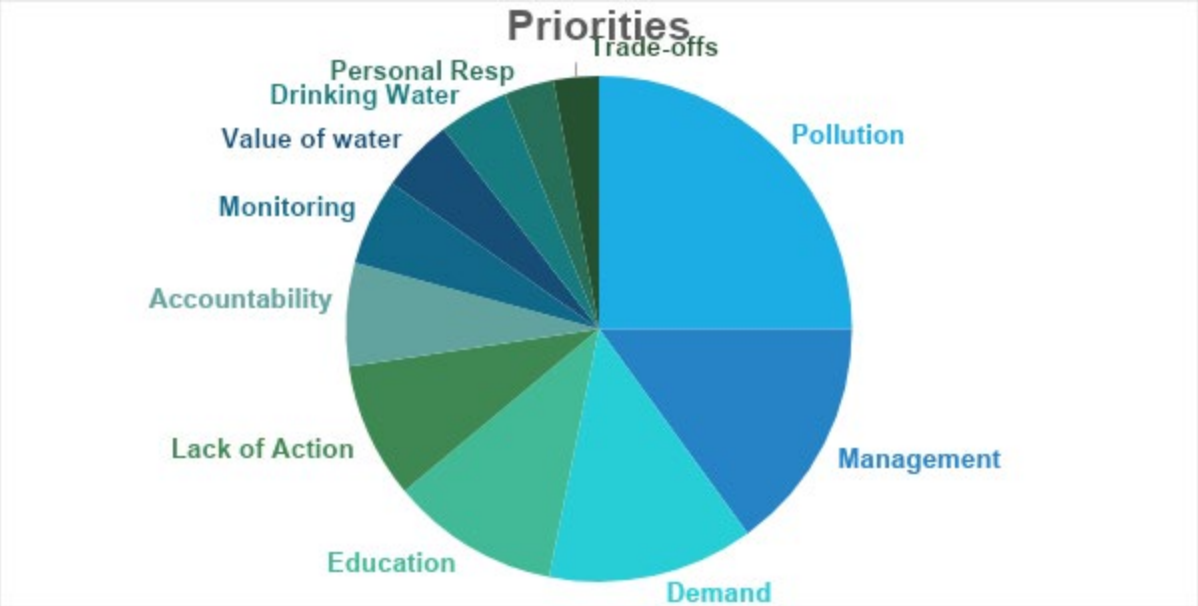
These themes also related to the 'values' identified.

The community were asked to identify the greatest challenges in groups and then undertook an individual prioritisation exercise. Also identified but not included below were climate change, legacy effects, user pays and the 'myth' that our freshwater is pristine.

The following info graphs summarised the communities responses.

Greatest Challenge

Ideal Future



The Wakatipu community vision for the future puts the needs of our freshwater as the priority and is separated into two parts as per the below vision. The following tables identify the ideal state to be achieved and the challenges currently faced.

The Vision	
All Water: ● supports and sustains life and wellbeing ● is resilient ● can exist in its natural state	The community: ● are consciously and actively engaged with, responsible for and proud of our water ● benefits from it – well being, access, recreation, health and scenic beauty, economic ● conserves, protects, respects the water ● review, reflect and respond to what the water needs

ALL WATER BY 2040

Our ideal state:	Our current challenges:
NATURAL FLOWS - Water flows at a rate that protects natural habitats, organisms, native species, trout and salmon and plant life. - Natural flows are reinstated and protected including natural floodplains, wetlands and riparian planting. - Buffer zones of natural vegetation exist around all freshwater sources.	**CONTAMINATION / POLLUTION** - Primary Industry (agricultural and industrial) – run off, stock in waterways, discharges. The headwaters of Lake Wakatipu national park flowing through high country stations. - There are currently historical mining rights in existence along the Dart and Glenorchy areas and Arrow Rivers although no large scale mining is currently in operation. - Urban Environment – earthworks/construction run off, stormwater contamination, wastewater, septic tank, ageing infrastructure, development, transport (both water and vehicle). - Stormwater within the Wakatipu Basin is often subject to overflow directly into the waterways. - Runoff from roads, roofs, lawns, earthworks and building projects. It may contain heavy metals, car engine oil, e-coli, paint residue and loose sediment, especially during heavy rain events (which are predicted to increase). - Large areas have been cleared around our waterways, wetlands drained and natural flows and groundwater levels disrupted.
DEVELOPMENT - Any development around waterways improves biodiversity, minimizes impact and proactively contributes to better overall water quality.	**URBAN DEVELOPMENT** - Development of rural areas - resulting in run off, loss of rural areas / wetlands / contamination of waterways. - Areas that were previously rural farmland within the surrounds of Queenstown have been developed, some large scale projects eg Five Mile, Remarkables Park, Queenstown Central, Shotover Country and Queenstown Country Club all resulted in disturbance of the landscape. Golf clubs and urban development around Mill Creek and Lake Hayes have also changed the local environment in recent years. - Queenstown Lakes District Council manages wastewater in urban areas, however there are large areas being developed (and historical) that are reliant on septic tanks or personal wastewater treatment. Ownership changes, aging and lack of monitoring increase the risk of contamination from wastewater.

Our ideal state:	Our current challenges:
NATIVE SPECIES - Waterways support a healthy stock of native species (fish, invertebrates, plants) and their habitats and spawning grounds as a priority. - Re-establish and protect the Mahinga kai of the Wakatipu Basin.	**NATIVE SPECIES** - Fish & Game monitor fish levels in the area. brown trout, salmon, rainbow trout and Longfin Eel are present. The Eel are endangered and impacted by hydro dams blocking their path to the sea.
WATER EXTRACTION - Water extraction from lakes, rivers and aquifers is controlled to ensure that the natural ecology thrives and biodiversity is not affected. - Water is used efficiently and not contaminated during use.	**WATER EXTRACTION** - There are numerous commercial uses of water taken – potable water (for visitor accommodation and hospitality), irrigation, snow making etc. There are also a number of private bores / water schemes operating. Information at the time of writing was not available on the total amount of water being abstracted or diverted.
INVASIVE ORGANISMS - Invasive organisms e.g. Didymo, Lindavia (Lake snow), Lagarosiphon are managed or eradicated with no new species introduced.	**INVASIVE ORGANISMS** - Didymo, Lindavia, cyanobacteria are present in the area with pockets of Lagarosiphon that are considered at high risk of spreading.

The following recommendations are provided by the community to support reaching the ideal state of freshwater in the Wakatipu Basin.

1. Natural physical and chemical state and trends of water in the Wakatipu is understood by statutory bodies (regional and district council, Department of Conservation).
2. Establishment of a robust, expanded, nationally comparable research and monitoring process for the lakes and rivers of the Wakatipu Basin to provide an understanding of:
    - Current lake / river water quality today and over time.
    - Water flows in all seasonal / climate condition.
    - Identify freshwater systems within the area ie what is going in / where is it going / is it leaving?
    - Modelling to understand and manage inputs / outputs / contaminants and the impact they may have in the future.
    - Understanding of agriculture impact / land use.
    - Providing an overall picture of the Wakatipu – co-ordinated accessible information on quality / quantity / eco-system health
3. All sources of contamination and the full range of contaminants identified, monitored and managed. All water bodies meet effective plan limits that allow identified values to be met.

4. Conduct an extensive suite of testing and protect catchment areas containing drinking water sources.
5. Co-ordinated monitoring of water abstraction, lake levels and river flows. Setting of optimum (not minimum) flows and levels to ensure health of water bodies.
6. Develop and implement a programme to return rivers and wetlands to their natural state including:
    - Establishment of a ‘buffer zone’ along all waterways with riparian planting and where possible exclusion of stock.
    - Allowance for flood plains, natural changes in course and sediment build up
    - Fish ladders are installed at dams to reinstate natural breeding /spawning patterns

THE COMMUNITY BY 2040

Our ideal state:	Our current challenges:
NATURAL FLOWS - Water bodies are valued and not seen as unproductive or an impediment to production. - Our waterways are accessible for recreation, enjoyment and economic benefit (eg tourism) when that access has no impact on the natural state of the waterways.	**NATURAL FLOWS** - Wetland destruction, development, water takes and increased urban growth have all impacted on natural flows. - Lack of information and scientific data related to optimal flows / impact of community on waterways.
COMMUNITY CULTURE - Our connection with water is maintained and continues to be strengthened between generations. - Water is valued by the community in its natural state 'where its voice can be heard' - People can enjoy the physical and spiritually enriching qualities of being with the water body. - Use of water is conscious, planned and aims to have as little impact as possible. - The community have actively supported, participated in and demanded remediation, protection and enhancement of the quality of freshwater in the region.	**COMMUNITY CULTURE** - Water is perceived by some as a resource for commercial exploitation, not valued in its natural state. - The community are becoming increasingly detached from the value, biodiversity and importance of our freshwater and our effects on it. - General lack of public knowledge and awareness on water issues.
INFRASTRUCTURE - Drinking water is safe, available and where possible treated minimally or with innovative treatment options. - Adequate water is available for daily human needs for drinking and hygiene. - The infrastructure needed by the community is fit for purpose, well planned and protects waterways from contamination.	**INFRASTRUCTURE** - All water used by households and businesses in urban areas is treated – including in many cases for irrigation. Very few rainwater collection / greywater recycling systems exist (exception GY camp). - Water metering for monitoring is minimal or non-existent. - Many private water takes and bores exist throughout the region. - Council infrastructure is not fit for purpose with leaks of potable water (inefficient) and sewage contamination

Our ideal state:	Our current challenges:
CONFIDENCE IN OUR WATER - We can trust in the quality of our freshwater to swim, drink or undertake recreation without fear or risk of illness or adverse effects. - Our waterways are accessible for recreation, enjoyment and economic benefit (eg tourism) when that access has no impact on the natural state of the waterways.	**CONFIDENCE IN OUR WATER** - High e-coli readings, sediment and poisonous algae at popular swimming spots affecting recreation Lake Hayes and Lake Wakatipu over the summers of 2018/19 have impacted on residents enjoyment of / and trust in the quality of their freshwater. - Urban water is treated, but rural schemes, private bores and private water takes exist throughout the district.
DEVELOPMENT / WATER USE - Water bodies are valued and not seen as unproductive or an impediment to production. - Primary industry values water and waterbodies and strives for efficient low impact use. - Urban growth / development / change of land use is closely managed to ensure no impact on the natural state of the water. - The purposes for which water is used support our social, cultural and environmental wellbeing and do not degrade water	**CONTAMINATION / POLLUTION** - Urban growth, increased paving and runoff, destruction of wetlands / rural areas and a high reliance on private vehicles / tourism vehicles have increased the contamination from human use in the area. - Increase in commercial and industrial water use and subsequent run-off and contamination into natural water system. - Some on-water tourism activities on the rivers and lakes contribute to contamination, damage and reduced enjoyment of the waterways in areas of congestion (eg Queenstown Bay). - Pockets of low quality water systems due to human interference in natural systems exist eg Lake Hayes - Under the Regional Water Plan, water is allocated on a first in first served basis subject to availability and 'efficient' use. It does not consider the outcomes from particular uses of water.

Our ideal state:	Our current challenges:
LEGISLATION - Local, regional and central policies and plans address all of the community's needs with the needs of the water as a priority.	**LEGISLATION** - The monitoring of water quality is currently minimal or non-existent. - Poor data archive cohesion systems and knowledge of information library is poor. - Cumulative effects of water use, volumes taken and treatment are not being addressed or understood. - Poor level of water testing and monitoring for water “state of play” to measure improvement, degradation. - Lack of cohesive, co-ordinated approach to the specific unique water systems that exist within the area. - A belief amongst politicians and officers that water can only be allocated on a first in first served basis, when in fact the RMA allows for water to be allocated amongst completing activities

THE COMMUNITY - RECOMMENDATION / ACTIONS

The community section applies to what the community needs, but is based on making sure the needs of water are a priority. There is an obvious overlap between the recommended action for the water, and the recommended actions for the community. In the upper Clutha Freshwater report the needs of the community cross over into the Wakatipu Basin and a district wide collaboration and integration approach is needed.

The following community recommendations are proposed

1. Establish a cohesive formal process for legislators and stakeholders to work closely with the community to effectively manage freshwater quality including managing the impact of development, run-off systems and monitoring. An effective, efficient process with clear accountability and management actions will result in legislation and regulation that is research based with clear accountability for all stakeholders.

2. Establish a working group to consider how to develop and implement changes to the Regional Water Plan that would allow scarce water to be allocated in the way that supports the values, needs and wellbeing of communities and our environment
3. Establish and implement a Wakatipu Freshwater Management Plan that includes:
   - Wetland re-generation, protection and expansion.
   - Continuation of appropriate riparian planting.
   - Reduced contamination from urban and rural activities.
   - Establishment of a habitat renewal and re-stocking programme for native aquatic species (eels, bully, galaxiids).
4. Establishment of a robust, expanded, nationally comparable research and monitoring process for the lakes and rivers of the Wakatipu Basin to provide an understanding of:
   - Current lake / river water quality today and over time.
   - Water flows in all seasonal / climate conditions.
   - Identify freshwater systems within the area ie what is going in / where is it going / is it leaving?
   - Modelling to understand and manage inputs / outputs / contaminants and the impact they may have in the future.
   - Understanding of agriculture impact / land use.
   - Providing an overall picture of the Wakatipu – co-ordinated accessible information on quality / quantity / eco-system health

5. Water based tourism activities and commercial activity on the shores / banks of the waterways have minimal impact whilst providing the opportunity for the community to interact, connect and value the freshwater.
6. Wastewater (sewage, agricultural and industrial) discharges are managed through consents and required to be treated to an extent which enables the receiving water bodies and / or land to be unaffected in regard to natural quality.
7. Mahinga Kai are restored. Rivers and Lakes support a healthy stock of native species with game species managed and controlled.

8. Co-ordinated *Education and Awareness Plan* for freshwater - driven by national government directives and Regional and Local Authorities, supported by the community to ensure localised relevance - to inform residents, businesses and visitors.

Key short-medium term areas for education and awareness include:

- The impact of water use
- Contaminants entering freshwater systems eg stormwater contamination, fertilizer, topdressing, development runoff
- Opportunities, education and engagement on ways to positively impact on the local freshwater systems
- Transparency in information, understanding of information that exists and what research is needed to inform management decisions.
- Opportunities and education for community to connect, interact, appreciate and value freshwater and its biodiversity in its natural state.

9. Transparency of water information and easy access for all parties (including the public).

10. Water sensitive Urban Design Policy developed and implemented by QLDC / ORC and other regulators eg Wellington water sensitive urban design policy[2]

    Infrastructure and development changes take time to implement and having a design policy encourages and ensures the protection of the waterways including:

    - Achieving 100% treatment of wastewater / stormwater with no contamination entering waterways.
    - Implementation of widespread water recycling systems – both residential and commercial eg rainwater capture systems, recycling, greywater systems
    - Leadership from agencies, individuals and organisation to utilise global best practice and learning from recent local applications eg Camp Glenorchy, Kirimoko
    - Assist in preparing for climate change eg heavy rainfall events.

[2] https://wellington.govt.nz/~/media/services/environment-and-waste/environment/files/wsud-guide.pdf

COMMUNITY VIEWS ON FRESHWATER

OVERALL BASELINE ANALYSIS (CURRENT SITUATION)

In developing this report, the Wakatipu Fresh Water Taskforce had access to a range of information provided by local / regional and national government, LAWA, Fish & Game, Kāi Tahu and other interested parties. In addition to the community consultation.

The issue of freshwater was topical and emotional through 2018/20 – both locally and nationally. Legislation is complex and research and/or monitoring information is often in different places, examination of this information was out of necessity at a high level.

The quality of water in much of the Queenstown Lakes is perceived to be among the highest in New Zealand.

However, there is fundamental lack of monitoring and measuring to provide any justification to this perception.

Limited water quality monitoring has shown that the rivers draining the higher altitude lesser developed areas and the outlets of the large lakes in Central Otago generally appear to have good water quality. Water quality as report by ORC and Lawa shows variable water quality however[3].

Persistent poor water quality in Lake Hayes and Mill Creek which have ongoing quality issues arising from a number of historical and current day activities and land uses, as well as its geological setting influencing the water quality create a complex mix of inputs. Small lakes such as Lake Johnson also have poor water quality currently. However the lack of intensive monitoring of the water in the area is a significant reason accurate assessment cannot be made at this current time.

Lagarosiphon is present in the Kawarau River, lake snow is also present in the Wakatipu – the long-term impact and how to manage / eradicate the two invasive species is unknown. With QLDC asset management having issues maintaining the water intakes and council infrastructure from the lake due to Lake Snow.

The headwaters of Lake Wakatipu (Rees, Dart and Greenstone rivers) are fed from the mountains / National Park and pass-through majority high-country farming of merino / cattle or part of the national park system before reaching our lakes and rivers. There are pockets of more intensive farming along the flood plains with limited information available on amounts / sources of contamination. Large scale irrigation does not currently occur on the high country stations.

Current monitoring work is carried out by Otago Regional Council which adopted an extended monitoring programme in their 10 year plan (pg78) in 2018. Annual monitoring for swimmability occurs during the summer, with five-year monitoring of groundwater, weeds, periphyton, macroinvertebrates, fish and wetland extent / hydrology and vegetation.

Work is also underway for urban stormwater management, the updating of mining rights (due 2021) and the introduction of freshwater management units (FMU) to meet National Freshwater Policy requirements. The Wakatipu basin is included in the Clutha

[3] https://www.goodwaterinotago.orc.govt.nz and lawa.org.nz

/ Mata-Au FMU. In the Wakatipu basin rain events lead to generally untreated stormwater discharging straight into the lakes and rivers.

In 2019 ORC and QLDC agreed to work more closely together to monitor and manage development and it's impacts on our waterways following a number of events across the district impacting freshwater from development.

In 2021 ORC is currently engaging with the community on regional water plans and their long term plan revisions.

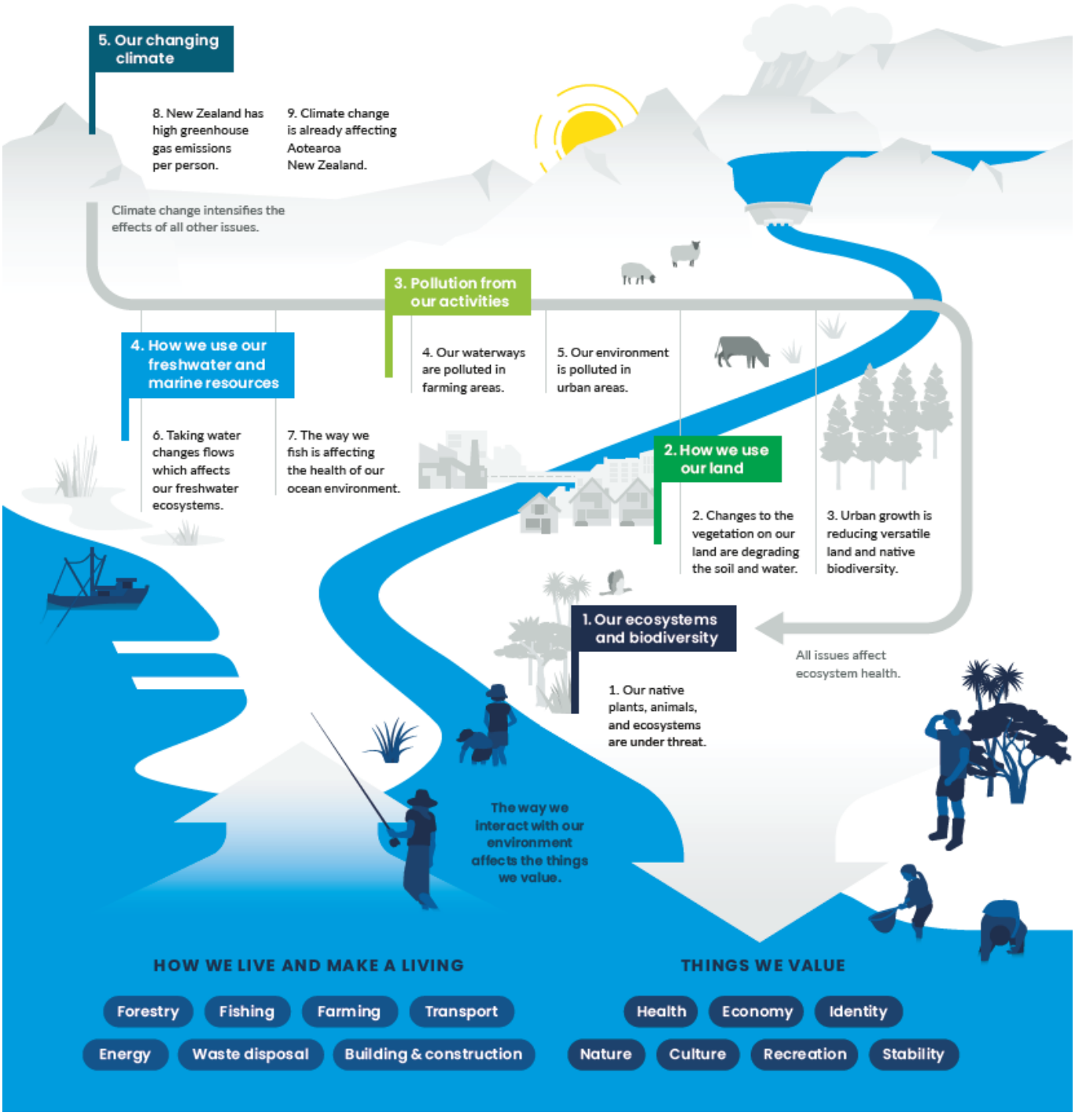
In 2019 the Ministry for the Environment and Stats NZ released Environment Aotearoa.[4] It provides a good summary of the impacts of how we live on our environment. In 2020 the same bodies released Our Freshwater 2020 which identified 4 priority areas:

- Our native freshwater species and ecosystems are under threat
- Water is polluted in urban, farming, and forestry areas
- Changing water flows affect our freshwater
- Climate change is affecting freshwater in Aotearoa New Zealand.

Of these 4 identifiers there is a similar finding for the Wakatipu region and therefore an immediate need to address the current baseline.

The below visualises the identifiers and the link to the community.

[4] Ministry for the Environment & Stats NZ (2019). New Zealand's Environmental Reporting Series: Environment Aotearoa 2019 Summary. Available from www.mfe.govt.nz



Attachment 2: Upper Clutha water task force report

https://shapingourfuture.org.nz/wp-content/uploads/2021/06/SoF-Final-Upper-Clutha-Freshwater-Report-2019.pdf

Covering email

RPS

From: John Glover <john@shapingourfuture.org.nz>
Sent: Friday, 3 September 2021 9:29 p.m.
To: RPS
Cc: John glover; Vanessa van Uden; Executive - Shaping our Future
Subject: Submission to RPS 21
Attachments: ORC Regional Policy Statement 2021 submission.docx

Categories: Submission - Sector stakeholder, LATE

Dear ORC submissions team,

Please find attached submission to RPS 21.

We request a time waiver for lateness and trust that the submission will be accepted.

John Glover, Board Secretary
Shaping our Future, Inc.
0275867233
www.shapingourfuture.org.nz