Council Meeting Agenda - 25 November 2020

Meeting will be held in the Council Chamber, Level 2, Philip Laing House
144 Rattray Street, Dunedin

Members:

Cr Andrew Noone, Chairperson	Cr Carmen Hope
Cr Michael Laws, Deputy Chairperson	Cr Gary Kelliher
Cr Hilary Calvert	Cr Kevin Malcolm
Cr Michael Deaker	Cr Gretchen Robertson
Cr Alexa Forbes	Cr Bryan Scott
Hon Cr Marian Hobbs	Cr Kate Wilson

Senior Officer: Sarah Gardner, Chief Executive

Meeting Support: Liz Spector, Committee Secretary

25 November 2020 01:00 PM

Agenda Topic — Page

That the public be excluded under LGOIMA Sec 48(1)(a) from discussions on the following items:

- Consideration of minutes of the public-excluded Council Meeting of 28 October 2020
- Amendments to the ORC Delegations Manual
- Draft Regional Policy Statement

Minutes of an ordinary meeting of Council held in the Council Chamber on Wednesday 28 October 2020 at 1:00 PM

Membership

Cr Andrew Noone	*(Chairperson)*
Cr Michael Laws	*(Deputy Chairperson)*
Cr Hilary Calvert	
Cr Alexa Forbes	
Cr Michael Deaker	
Hon Cr Marian Hobbs	
Cr Carmen Hope	
Cr Gary Kelliher	
Cr Kevin Malcolm	
Cr Gretchen Robertson	
Cr Bryan Scott	
Cr Kate Wilson	

Welcome

Chairperson Andrew Noone welcomed Councillors, members of the public and staff to the meeting at 1 p.m.

Staff present included: Sarah Gardner (Chief Executive), Nick Donnelly (General Manager Corporate Services), Gwyneth Elsum (General Manager Strategy, Policy and Science), Gavin Palmer (General Manager Operations), Amanda Vercoe (Executive Advisor), Liz Spector (Committee Secretary), Ryan Tippet (Media Communications Lead).

1. APOLOGIES

Resolution

That the lateness of Cr Malcolm and Cr Hope be accepted.

Moved: Cr Noone
Seconded: Cr Calvert
CARRIED

Cr Wilson joined the meeting electronically. Cr Hope joined the meeting electronically at 2:20 p.m. and Cr Malcolm joined the meeting electronically at 2:25 p.m.

2. CONFLICT OF INTEREST

No conflicts of interest were advised.

3. CONFIRMATION OF AGENDA

Cr Noone noted that the staff member speaking to the Six-Monthly Report to the Minister for the Environment was in a community meeting until 2 p.m. so consideration of that report was moved later in the agenda.

4. PUBLIC FORUM

No requests to speak during Public Forum were received.

5. PRESENTATIONS

5.1. Presentation of Otago Regional Helicopter Annual Report

Martin Dippie, Chair, Otago Rescue Helicopter Trust, Graeme Gale, Managing Director HeliOtago, and Vivienne Seaton, Secretary Manager ORHT presented the Council with the Trust's Annual Report and responded to questions. After the presentation, Cr Noone thanked the group for their work and said the Council looked forward to its continuing support of the Trust.

6. ACTIONS (STATUS OF COUNCIL RESOLUTIONS)

7. CONFIRMATION OF MINUTES

Resolution

That the minutes of the public portion of the Council meeting held on 30 September 2020 be received and confirmed as a true and accurate record, with or without changes.

Moved: Cr Forbes
Seconded: Cr Hobbs
CARRIED

8. CHAIRPERSON'S AND CHIEF EXECUTIVE'S REPORTS

8.1. Chairperson's Report

Resolution

That the Chairperson's report be received.

Moved: Cr Hobbs
Seconded: Cr Deaker
CARRIED

8.2. Chief Executive's Report
Resolution

That the Council:

1) ***Receives*** *the Chief Executive's report.*
2) ***Notes*** *that the Council appreciates the work of Sarah Gardner and ELT to achieve the results indicated in the staff survey.*

Moved: Cr Deaker
Seconded: Cr Hobbs
CARRIED

9. MATTERS FOR COUNCIL DECISION

Cr Hope joined the meeting at 02:20 pm.

9.1. Transfer of Building Consent Authority function to Environment Canterbury

Otago Regional Council accepted the transfer of Building Consent Authority (BCA) functions under the Building Act 2004 for "Large Dams" from West Coast Regional Council and Environment Southland in 2007. ORC has remained an accredited BCA since. The current transfer agreements between West Coast and Southland will end on 1 June 2021. Following a review of costs to benefits associated with remaining a BCA, staff recommended that the Council consider transferring its BCA functions to Environment Canterbury on the basis of cost effectiveness and efficiencies. The Council approved consultation to initiate the transfer of functions at its 22 April 2020 meeting and consultation procedures began 7 August 2020 and concluded 7 September 2020. No submissions were received. The hearing panel met on 29 September and recommended no changes to the Statement of Proposal which was approved by Council on 24 June 2020. This report was provided to obtain Council approval to finalise the transfer of building consent authority functions from ORC to Environment Canterbury.

Richard Saunders (GM Regulatory) was present to speak to the report and respond to questions. Councillors asked several questions, particularly related to uncertainty about future water regulation which may be affecting the small number of large dam consents being submitted. Cr Kelliher noted he anticipates there will be an increasing number of consent applications for such dams due to changes effected by climate change and freshwater regulations. Cr Scott noted Cr Kelliher's concerns but said it was not economical to continue to support inefficient activities and he said it was important to proceed with the transfer to Environment Canterbury for BCA functions. After further discussion, Cr Noone said the recommendation was pragmatic and the process for future applicants won't change. He then asked for a motion.

Resolution

That the Council:

1) ***Receives*** *this report.*
2) ***Agrees*** *that the benefits of the proposed transfer of Building Consent Authority functions to Environment Canterbury outweigh any negative impacts of the proposal.*
3) ***Approves*** *the transfer of Building Consent Authority functions from Otago Regional Council to Environment Canterbury, as recommended by the Hearing Panel.*

4) ***Notes*** *that the transfer is subject to final approval by Environment Canterbury.*

Moved: Cr Noone
Seconded: Cr Hobbs
CARRIED

Cr Kelliher requested his vote against the resolution be noted.
Cr Hope requested her vote against the resolution be noted.

Cr Malcolm joined the meeting at 02:30 pm.

9.2. RMA s27 Six-monthly Report to Minister for the Environment

The Minister for the Environment wrote to the Otago Regional Council on 18 November 2019, setting out recommendations to develop a fit for purpose planning framework for Otago. One of the requirements outlined in the letter was a formal report, every six months, on progress against three measures be provided to the Minister. The first report was delivered to the Minister on 30 April 2020, and the second report is due by 31 October 2020.

Gwyneth Elsum (GM Strategy, Policy and Science) was present and Anita Dawe (Manager Policy and Planning), was present electronically to speak to the report and respond to questions. Cr Kelliher noted typographical errors in the draft letter to the Minister and asked that these be corrected prior to its submission. Cr Laws enquired if the Council would receive feedback on the report to the Minister. Ms Dawe said no response from the Minister was received after the initial letter and she did not anticipate any this time. There were no further discussions and Cr Noone moved:

Resolution

That the Council:

1) ***Receives*** *this report.*
2) ***Approves*** *the report to the Minister for the Environment reporting on progress against the recommendations contained in his letter of 18 November 2019; and*
3) ***Notes*** *that the next report will be required to be provided by 30 April 2021.*

Moved: Cr Noone
Seconded: Cr Calvert
CARRIED

9.3. Council Appointment: Manuherekia Freshwater Management Unit and Manuherekia Reference Group

At its meeting on 26 August 2020, Council agreed to Freshwater Management Unit Liaisons as part of the Council and Committee decision-making structure. Councillor Andrew Noone was appointed as the liaison for the Manuherekia Freshwater Management Unit (FMU) and as the council representative to the Manuherekia Reference Group (MRG). Cr Noone subsequently requested an additional councillor be appointed as a second liaison to the Manuherekia FMU and the MRG, to assist with workload and he nominated Cr Kevin Malcolm.

Resolution

That the Council:

1) ***Receives*** *this report.*
2) ***Appoints*** *Councillor Kevin Malcolm as an additional Freshwater Management Liaison to the Manuherekia Freshwater Management Unit.*
3) ***Appoints*** *Councillor Kevin Malcolm as an additional ORC governance representative on the Manuherekia Reference Group.*

Moved: Cr Calvert
Seconded: Cr Laws
CARRIED

10. MATTERS FOR NOTING

10.1. Documents Signed Under Council Seal

This report was provided to inform the Council of delegations which have been exercised during the period 26 August 2020 through 28 October 2020.

Resolution

That the Council:

1) ***Receives*** *this report.*

Moved: Cr Noone
Seconded: Cr Hobbs
CARRIED

11. REPORT BACK FROM COUNCILLORS

Crs Calvert, Forbes, Kelliher, Deaker, Laws, Scott and Wilson updated the meeting on external activities undertaken since the previous Council meeting.

Cr Laws left the meeting at 02:52 pm.
Cr Laws returned to the meeting at 02:55 pm.

12. RECOMMENDATIONS ADOPTED AT COMMITTEE MEETINGS

12.1. Recommendations of the Data and Information Committee, 14 October 2020

Resolution

That the Council:

1) ***Adopts*** *the recommendations of the 14 October 2020 Data and Information Committee.*

Moved: Cr Calvert
Seconded: Cr Hobbs
CARRIED

12.2. Recommendations of the Implementation Committee, 14 October 2020

Resolution

That the Council:

1) ***Adopts*** *the recommendations of the 14 October 2020 Implementation Committee.*

Moved: Cr Calvert
Seconded: Cr Hobbs
CARRIED

12.3. Recommendations of the Regulatory Committee, 15 October 2020

Resolution

That the Council:

1) ***Adopts*** *the recommendations of the 15 October Regulatory Committee.*

Moved: Cr Calvert
Seconded: Cr Hobbs
CARRIED

13. RESOLUTION TO EXCLUDE THE PUBLIC

Resolution

On the grounds that matters will be prejudiced by the presence of members of the public during discussions on the following items, it is resolved:

1) ***That*** *the following items are considered with the public excluded:*

Meeting Item	Reason for passing this resolution in relation to each matter	Ground(s) under section 48(1) for the passing of this resolution
1.1 Minutes of the 30 September 2020 public excluded Council Meeting	To protect information which is subject to an obligation of confidence or which any person has been or could be compelled to provide under the authority of any enactment, where the making available of the information— would be likely otherwise to damage the public interest – Section 7(2)(c)(ii) To enable any local authority holding the information to carry out, without prejudice or disadvantage, commercial activities – Section 7(2)(h) To enable any local authority holding the information to carry on, without prejudice or disadvantage, negotiations (including commercial and industrial negotiations) – Section 7(2)(i)	Section 48(1)(a); Subject to subsection (3), a local authority may by resolution exclude the public from the whole or any part of the proceedings of any meeting only on 1 or more of the following grounds:(a) that the public conduct of the whole or the relevant part of the proceedings of the meeting would be likely to result in the disclosure of information for which good reason for withholding would exist.

2.1 National Wallaby Funding Round 2020 - 2024	To enable any local authority holding the information to carry out, without prejudice or disadvantage, commercial activities – Section 7(2)(h) To enable any local authority holding the information to carry on, without prejudice or disadvantage, negotiations (including commercial and industrial negotiations) – Section 7(2)(i)	Section 48(1)(a); Subject to subsection (3), a local authority may by resolution exclude the public from the whole or any part of the proceedings of any meeting only on 1 or more of the following grounds:(a) that the public conduct of the whole or the relevant part of the proceedings of the meeting would be likely to result in the disclosure of information for which good reason for withholding would exist.
2.2 Set Chief Executive Key Performance Indicators FY21	To protect the privacy of natural persons, including that of deceased natural persons – Section 7(2)(a)	Section 48(1)(a); Subject to subsection (3), a local authority may by resolution exclude the public from the whole or any part of the proceedings of any meeting only on 1 or more of the following grounds: (a) that the public conduct of the whole or the relevant part of the proceedings of the meeting would be likely to result in the disclosure of information for which good reason for withholding would exist.
2.3 Port Otago Resolution in Lieu of Annual Shareholders' Meeting	To protect the privacy of natural persons, including that of deceased natural persons – Section 7(2)(a) Maintain the effective conduct of public affairs through the protection of such members, officers, employees, and persons from improper pressure or harassment – Section 7(2)(f)(ii) Enable any Council holding the information to carry out, without prejudice or disadvantage, commercial activities – Section 7(2)(h)	Section 48(1)(a); Subject to subsection (3), a local authority may by resolution exclude the public from the whole or any part of the proceedings of any meeting only on 1 or more of the following grounds: (a) that the public conduct of the whole or the relevant part of the proceedings of the meeting would be likely to result in the disclosure of information for which good reason for withholding would exist.

Moved: Cr Noone
Seconded: Cr Laws
CARRIED

14. CLOSURE

There being no further public business, Cr Noone declared the public portion of the meeting closed at 3:02 p.m.

_____ _____

Chairperson Date

ACTION REGISTER – STATUS OF OUTSTANDING RESOLUTIONS OF COUNCIL MEETINGS

Meeting Date	Document	Item	Status	Action Required	Assignee/s	Action Taken	Due Date	Completed (Overdue)
30/09/2020	Council Meeting 2020.09.30	COVID-19 Councillor Working Group Update	Completed	Produce a one-page report summarising outcomes related to ORC strategic priorities we are seeking between now and 2023 that may be enabled by the investment opportunities provided by the COVID-19/Jobs for Nature funds.	Sarah Gardner	**3/11/2020** Report provided to Council at 12 November Strategy and Planning Committee meeting.	18/11/2020	12/11/2020
12/08/2020	Council Meeting 2020.08.12	Hearing Panel Recommendation on Interim Trial Simplified Dunedin Fares Consultation	In Progress	Produce a report to enable Council to further consider options for what happens following end of simplified fare trial.	Garry Maloney, Gavin Palmer	**19/10/2020** Report is being prepared.	31/12/2020	
26/08/2020	Council Meeting 2020.08.26	Electoral System for 2022 and 2025 Local Body Elections	In Progress	Work with Electoral Officer to include a poll asking for voter preference for STV/FPP alongside voting papers for the 2022 local elections.	Amanda Vercoe, Liz Spector	**1/09/2020 Liz Spector** Contacted Electoral Officer Anthony Morton of Electionz for information. He will update our file, noting the request to conduct the poll with the 2022 election. He indicated additional cost of approx $75,000, not including additional comms that will be necessary. **14/09/2020 Liz Spector** Public Notice in ODT on 12/9/20 to meet legislative requirements and to advise ORC intends to conduct a poll on voting systems alongside the 2022 local body elections.	01/01/2022	
30/09/2020	Council Meeting Public Excluded 2020.09.30	National Wilding Pine Funding Round 2020-24	In Progress	Seek discussions through the Chair with appropriate Ministers and Territorial Authorities about certain wilding trees being able to be controlled or encouraged to be controlled in areas where they may become a source issue in the future.	Andrea Howard, Gavin Palmer	**19/10/2020** To start.		
30/09/2020	Council Meeting Public Excluded 2020.09.30	National Wilding Pine Funding Round 2020-24	In Progress	Incorporate a process into draft 2021/31 LTP to develop a Regional Strategy for Wilding Conifer Management throughout Otago to ensure a holistic approach across Otago to cover all 17 mgmt areas.	Andrea Howard, Gavin Palmer	**19/10/2020** Being provided for in the Draft 2021/31 LTP.	30/06/2021	

Meeting Date	Document	Item	Status	Action Required	Assignee/s	Action Taken	Due Date	Completed (Overdue)
30/09/2020	Council Meeting Public Excluded 2020.09.30	National Wilding Pine Funding Round 2020-24	In Progress	***Incorporate*** *a review of the current regional delivery and management structure into the Draft 2021/31 Long Term Plan to identify any areas where either strategic or operational improvements could be made to simplify the current structure and reduce unnecessary risk to Council.*	Andrea Howard, Gavin Palmer	**19/10/2020** Being provided for in the Draft 2021/31 LTP.	30/06/2021	
28/10/2020	Council Meeting Public Excluded 2020.10.28	Set Chief Executive Key Performance Indicators for FY21	In Progress	Crs Robertson, Laws and Noone to meet with CE to work through draft KPIs to develop a mutually agreed document and report back to Council as soon as practicable.	Cr Noone		19/10/2020	**Overdue by: 29 days**

7.1. Current Responsibilities in Relation to Drinking Water

Prepared for:	Council
Report No.	P&S1878
Activity:	Governance Report
Authors:	Kyle Balderston, Team Leader Urban Growth and Development; and Melanie Heather, Senior Environmental Officer (Compliance)
Endorsed by:	Gwyneth Elsum, General Manager Strategy, Policy and Science Richard Saunders, General Manager Regulatory
Date:	25 November 2020

PURPOSE

[1] To inform the Council on Otago Regional Council's (ORC) current responsibilities in relation to drinking water.

EXECUTIVE SUMMARY

[2] This paper is part of a series alongside two other papers relating to drinking water issues in Otago that:

a. Advise Council on the general intent and content of the Water Services Bill, its potential implications for ORC specifically, and for Otago more generally, particularly as it relates to ORC's future responsibilities. The paper also seeks approval, via delegated authority, to prepare a written submission to the appropriate select committee on the Bill; and

b. Update Council on the concurrent Three Waters Service Delivery reforms intended to better facilitate safer, more equitable and efficient three waters delivery across New Zealand.

[3] ORC, as a Regional Council, has a range of existing functions and duties in relation to three waters infrastructure and services. These occur because of the interface between these services with water quality generally, and human drinking water specifically. ORC's role generally relates to managing takes, land uses and discharges with a focus on maintaining and enhancing the quality of source (or raw) waters. Drinking water suppliers are then responsible for treating source water to the appropriate standard and protecting it from contamination from the plant to the tap and ultimately consumers. Both parties have a duty to cooperate and share information and act to ensure safe drinking water supplies are maintained.

[4] The general requirements that relate to Regional Council duties are imposed by:

a. Resource Management Act 1991 (**RMA**) which imposes a wide range of duties and powers in relation to environmental, cultural, social and economic values; and more specific regulations under it including:

i. The National Policy Statement for Freshwater Management (**NPS-FM**) and National Environmental Standards for Freshwater Management (**NES-FW)**

which require Councils to protect and enhance the quality of waterbodies and the wider environment from general and more specific land use impacts; and

ii. The National Environmental Standards for Sources of Human Drinking Water **NES-DW** requires Regional Councils to ensure that effects of activities on drinking water sources are considered in decisions on resource consents, and in developing and monitoring regional plans, including permitted activities.

b. The Health Act 1956, specifically Part 2A which requires Regional Councils to share information and take action to restore safe drinking water supplies as soon as possible using any power or duty under any legislation. This obligation includes, any regulations developed under it, including the Drinking Water Standards.

[5] Territorial Authorities (TAs) have specific responsibilities to plan and provide for the continuation of water services to their communities, including considering future growth and other risks under the Local Government Act 2002 (**LGA**).

[6] The Water Services Bill and structural reforms will largely strengthen these responsibilities that ORC has, to maintain and enhance the quality of water sources, and the changes are intended to dovetail into the framework that is evolving under the NPS-FM.

[7] The changes are likely to require further resource and investment, and staff from across the Council are currently considering the operational, consenting, compliance and policy implications of the proposed reforms for consideration as part of the Long Term Planning process.

RECOMMENDATION

That the Council:

1) ***Receives*** *this report.*

BACKGROUND

[8] This paper should be read in conjunction with two companion papers covering ongoing regulatory and structural reforms to three waters infrastructure.

[9] For the most part, these reforms will maintain or strengthen ORCs current responsibilities that focus on source or raw water protection, alongside duties to share information and take action necessary to preserve safe supplies.

ISSUE

[10] Regional Councils have a range of functions and duties in relation to maintaining and enhancing water quality under the RMA. These functions have given greater focus where the water body is also a source of human drinking water. Regional Councils' responsibilities generally relate to water while it is "in the environment". When the water is taken from that source for drinking water, the user or drinking water supplier is

largely responsible for ensuring it meets applicable standards and that it will not cause harm to consumers or the environment. A high-quality source water is the best way to ensure safe drinking water is supplied. However Regional Councils do have a duty to share information with suppliers and consumers and use any power they have to ensure drinking water is safe or when not safe, that safe supply is restored without delay.

[11] The Water Services Bill and concurrent reforms do not suggest fundamental alterations to ORCs current responsibilities, which focus on maintaining and improving source water quality, but they are intended to improve water quality and safety from source to tap, and will require some changes to operations, policy and compliance mainly through increased resource and attention. Some of these changes are already partly underway and align to the NPS-FM. These matters are covered in more detail in the companion papers, and there are opportunities for improvement in both the proposed regulations and in ORC's ability to leverage them to achieve broader water quality aims.

ORC's Current Responsibilities with respect to Drinking Water

Legislative Context

[12] There are legislative and common law obligations on Regional Councils relevant to the supply of drinking water. The principal obligations are statutory and are outlined below and in more detail in Attachment 1 to this report. For the most part, Regional Councils responsibilities are under the RMA. TAs have broad responsibilities under the LGA and RMA, and Drinking Water Suppliers have specific responsibilities under the Health Act and LGA, and are often regulated under the RMA (by regional or local councils) as a water take or land use consent holder as part of their operations.

[13] This paper focusses on the existing legislative requirements, focussing on ORC, with some noting of specific areas of potential changes as a result of the Water Services Bill. More detailed commentary on the content and impact of the Water Services Bill is included in the Submission paper.

[14] Generally, ORCs existing responsibilities and requirements relate to maintaining environmental source water quality by:

a. The control of the use of land;
b. The control of taking, use, damming and diversion of water and the control of the quantity, level and flow of water;
c. The control of discharge of contaminants to water; and
d. the strategic integration of infrastructure with land use.

[15] In addition to these general requirements, mostly imposed under the RMA, Regional Councils also have a monitoring, and information supply role and must take timely and direct action where issues are noted though that role, to maintain drinking water safety and human health (under the Health Act 1956).

Resource Management Act 1991

[16] Under the RMA, ORC has a range of general and specific duties, functions and powers in relation to water quality and quantity, with more specific duties relating to water bodies used for human consumption, articulated in more detail under regulations including the NPS-FM. These general water responsibilities are outlined in some detail in Attachment

1, and largely dovetail with or support the more specific drinking water related requirements.

National Environmental Standards for Sources of Human Drinking Water

[17] Particular focus is given to Regional Councils' RMA obligations for drinking water by the National Environmental Standards for Sources of Human Drinking Water[1]. The NES-DW requires Regional Councils to ensure that effects of all activities on drinking water sources are considered in decisions on resource consents, and in developing and monitoring regional plans, including when setting permitted activity thresholds. Regional Councils are required to:

i. decline discharge or water take permits that are likely to result in community drinking water becoming unsafe for human consumption following existing treatment (*i.e. not consent any activities that impact water quality such that current treatment approaches must be modified*);
ii. be satisfied that permitted activities in regional plans will not result in community drinking water supplies being unsafe for human consumption following existing treatment (*i.e. ensure that permitted activities, cumulatively or individually don't impact water quality such that existing treatment approaches must be modified*)
iii. place conditions on relevant resource consents that are granted, that require notification of drinking water suppliers if significant unintended events occur (*e.g. spills, contamination, erosion*) that may adversely affect nearby or downstream sources/takes of human drinking water.

Drinking water supplies

[18] Drinking water supplies must be registered with the Ministry of Health (MoH) who make the list of registered supplies available on a website and as spatial data for further use2. This does not include self-servicing suppliers. The two maps below show the location, class and source type of registered Drinking Water supplies in the region. This data is sourced from the Drinking Water Register provided by MfE in 2018, and is also made available to staff via Otago Maps for consideration in consenting and plan making activities to ensure compliance with the NES-DW.

[19] These maps highlight that while there are some large plants, there are many smaller plants, sourcing water from a wide variety of bodies including major lakes, aquifers and rivers and smaller springs and races. The arid climate in much of inland Otago also reduces the usefulness[3] and therefore prevalence of rainwater tanks (either as a primary source or backup) and so there is a high reliance on groundwater and onsite wastewater treatment for a significant proportion of non-reticulated properties[4].

[1] https://www.mfe.govt.nz/fresh-water/freshwater-acts-and-regulations/national-environmental-standard-sources-of-human

[2] This will continue under the Water Services Bill, but with Taumata Arowai taking over most of these administrative functions from MoH.

[3] Central Otago District Council for example will not accept rainwater as a suitable source for subdivision consenting. The same arid climate also reduces the requirement for and prevalence of detention tanks for stormwater quality or quantity purposes which in other parts of New Zealand typically double duty as supplementary water sources (e.g. gardening) or emergency backup supply or firefighting.

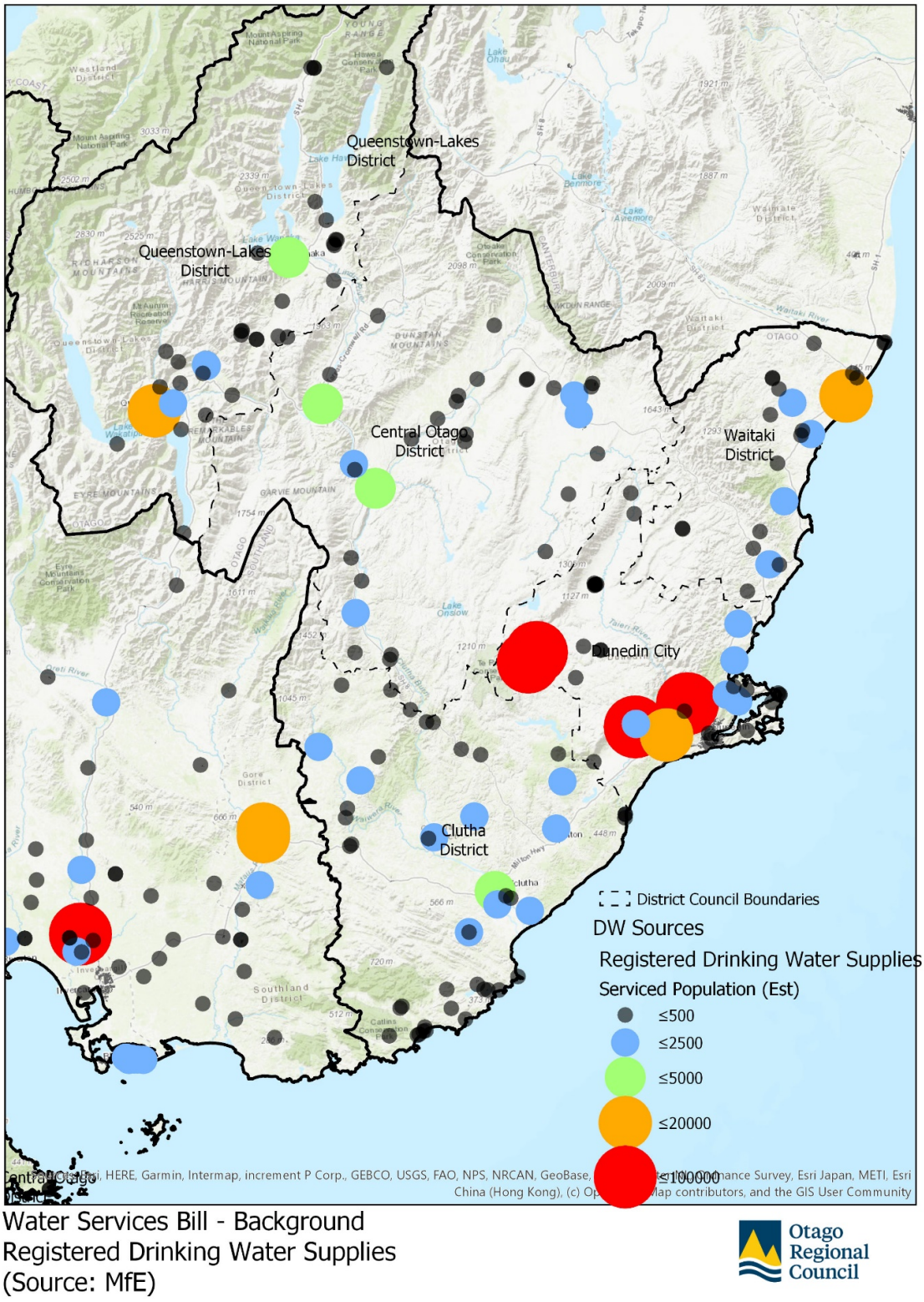


Figure 1: Otago Regional Drinking Water Supplies by Estimated Servicing Population (Note population figures reflect size of serviced area and may add to greater than regional population due to many areas having multiple sources)

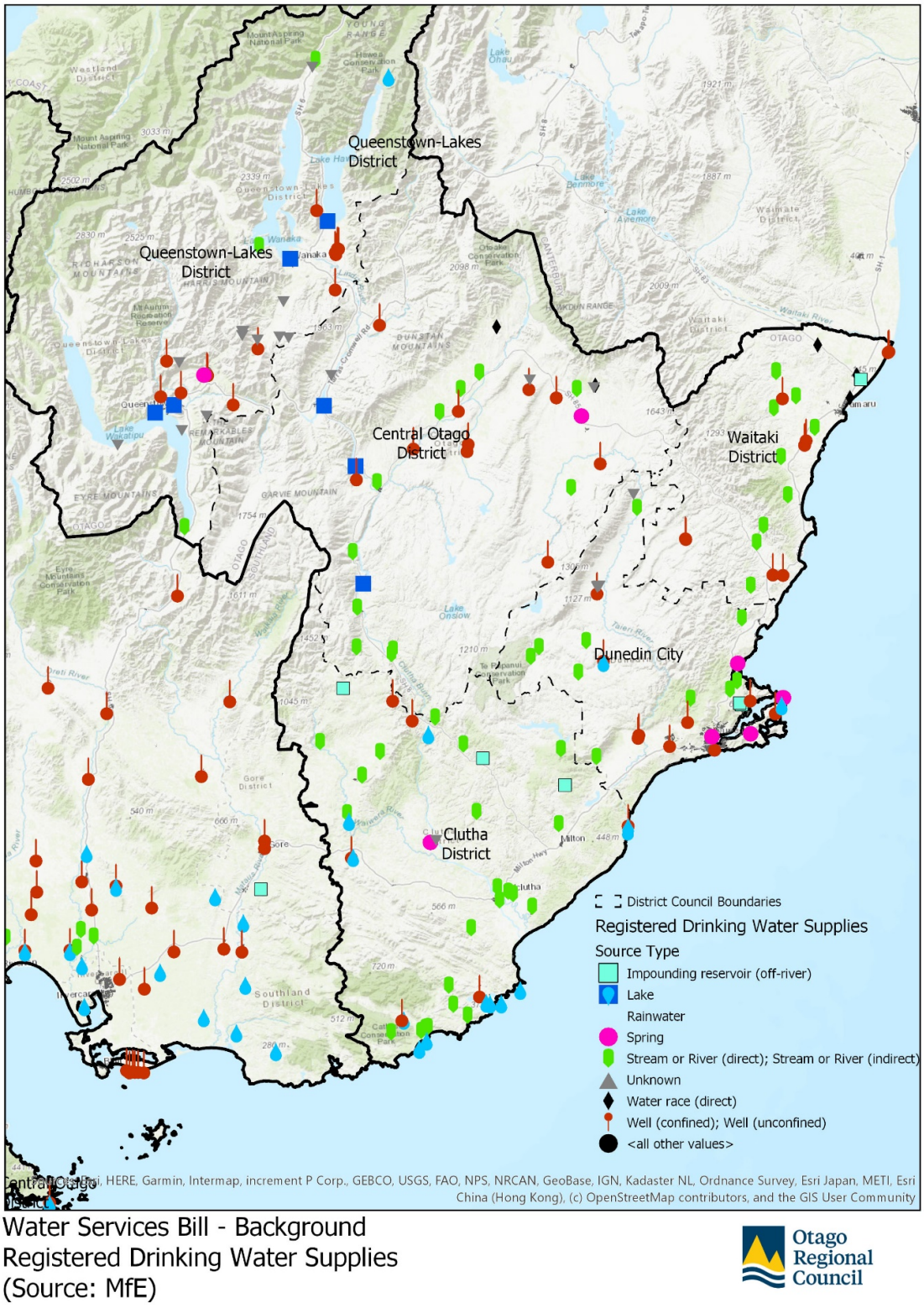


Figure 2: Otago (and Southland) Regional Drinking Water Supplies by source body type.

[20] Technical advice provided by Central Government on the application of the NES-DW suggest significant areas for protection of sources[5] as indicated in summary form in Figure 3 below. Considering the maps of registered sources above and the various water bodies involved highlights that very significant proportion of the Otago Regions waterbodies would fall within the areas suggested to be applied to protection Zones 2 and 3. These areas are significantly greater than the current Water Plan requirements which apply a limited number of Ground Water Protection zones over specified high risk aquifers, not all, and not to surface water or conjunctive sources (of which there are several known takes).

[21] An analysis of consented water takes highlights that there is a variable level of volume and takes that include drinking water in whole or part. This 'mixed use' further highlights the importance of maintaining water quality at source, and through to the tap for ORC as a consenting and plan making authority. It also highlights that many consent holders are potentially also 'drinking water suppliers' even if this is not the intended end use of the bulk of the water volume taken.

[22] Figures 4 and 5 below highlight this variability in use based on the number of current resource consents, where the stated uses have been grouped into "only drinking water", "includes drinking water" and "not including drinking water". Analysis by volume by stated use may alter the relative proportion. Permitted takes are also common, but due to their nature ORC has limited information on their location, source water body and volume, excepting the location of boreholes which do require consent. Similar data has been analysed for surface water (lakes, rivers and streams), noting that permitted activity takes are even more difficult to determine.

[23] Central Government work in providing technical advice on improving the application of the NES-DW suggest significant increase in the area required for protection of sources[6] as indicated in summary form in Figure 3 below. Considering the maps of registered sources above and the various water bodies involved highlights that very significant proportion of the Otago Regions waterbodies would fall within the areas suggested for applying to protection Zones 2 and 3. Further work is needed, but in any event these areas are significantly greater than the current Water Plan requirements which apply a limited number of Ground Water Protection zones over specified high risk aquifers, not all, and not to surface water or conjunctive sources (of which there are several known takes).

[5] https://www.mfe.govt.nz/sites/default/files/media/Fresh%20water/technical-guidelines-for-delineating-drinking-water-source-protection-zones.pdf
[6] https://www.mfe.govt.nz/sites/default/files/media/Fresh%20water/technical-guidelines-for-delineating-drinking-water-source-protection-zones.pdf

Specifications for Default Drinking Water Source Protection Zones

Zone	*Surface Water Source*	*Groundwater Source*	*Conjunctive Source*
Zone 1: **Intake/Wellhead Protection Zone** to control direct effects on the intake structure	• Minimum of 5 m landward of the water's edge (flood plain edge), or a larger zone of at least 30 m landward (where this can be achieved in a practical manner) on both sides for the 1000 m upstream reach of the intake and 100 m downstream, including all tributaries within that distance. • For lakes a 500 m radius from the intake should apply, and 5 m landward of the water's edge, or a larger zone of at least 30 m (where this can be achieved in a practical manner).	• 5 m radius around well head, or a larger zone of at least 30 m (where this can be achieved in a practical manner).	• For galleries and wells within a river bed, the same intake zone as for a surface water take would apply. • For springs, the same intake zone as for a groundwater source would apply.
Zone 2: **Intermediate Zone** for protection from microbial contamination and chemical discharges or spills	• 8 hours travel time to intake (assuming a river water velocity of 1m/s if no site specific information is available), 100 m downstream and 100 m landward of the water's edge for the reach of surface water described in the preceding point, including all tributaries within that distance. • For lakes, the whole lake and 8 hours travel time within tributaries with a 100 m buffer strip.	• 1 year time of travel to the well intake (based on microbial attenuation via the migration pathway), out to a maximum distance of 2.5 km, with a conservative allowance for parameter variability and uncertainty. • If no information is available on the groundwater flow direction then the zone shall be defined by an area of 2.5 km radius around the well. • For aquifers where long travel distances with little attenuation are known to occur (such as karst aquifers), the Zone 2 definition could be replaced with Zone 3.	• For wells where Zone 2 intersects a surface waterway, both the surface water and groundwater protection zones should apply. • For springs and small groundwater fed lakes, the same zones as for wells should be applied.
Zone 3: **Entire Catchment/ Capture Zone**	The entire surface water catchment upstream of a point 100 m downstream of the intake.	• The total capture zone for the well or catchment that could contribute water to the well, with a conservative allowance for parameter variability and uncertainty. • In the unlikely event that no information is available on the groundwater flow direction then the zone shall be defined as the entire groundwater catchment. • In addition, where a number of wells draw from the same groundwater system, it may be more pragmatic to make Zone 3 the entire groundwater catchment.	The total extent of the groundwater and surface water catchments contributing to the well or surface waterway.

Figure 3: MfE suggested specifications for Drinking Water Protection Zones

[24] An analysis of consented water takes highlights that there is a variable level of volume and takes that include drinking water in whole or part. This 'mixed use' further highlights the importance of maintaining water quality at source, and though to the tap for ORC as a consenting and plan making authority. It also highlights that many consent holders are also drinking water suppliers even if this is not the intended end use of the bulk of the water taken.

[25] Figures 4 and 5 below highlights this variability in use based on the number of current resource consents, where the stated uses have been grouped into 'only drinking water', 'includes drinking water' and 'not including drinking water'. Analysis by volume by stated use may alter the relative proportion. Permitted takes are also common, but due to their nature ORC has limited information on their location, source water body and volume, excepting the location of boreholes which do require consent. Similar data has been analysed for surface water (lakes, rivers and streams), noting that permitted activity takes are even more difficult to determine.

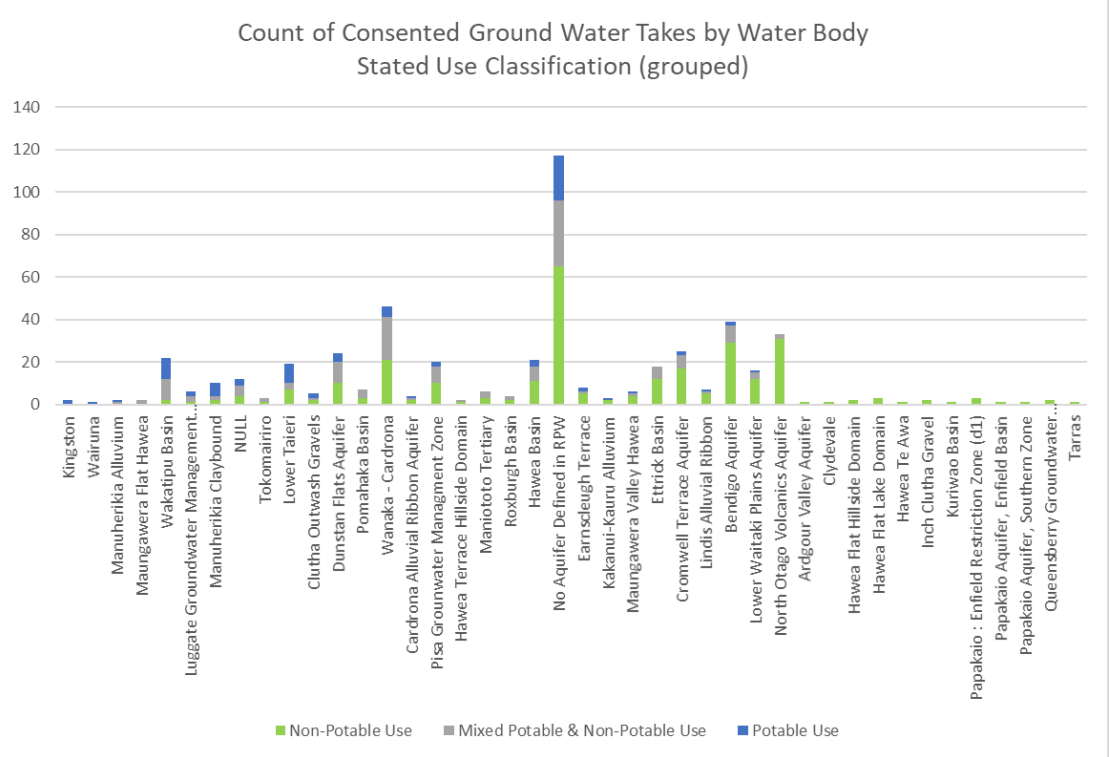


Figure 4: Count of consented groundwater takes by Aquifer and stated use (grouped)

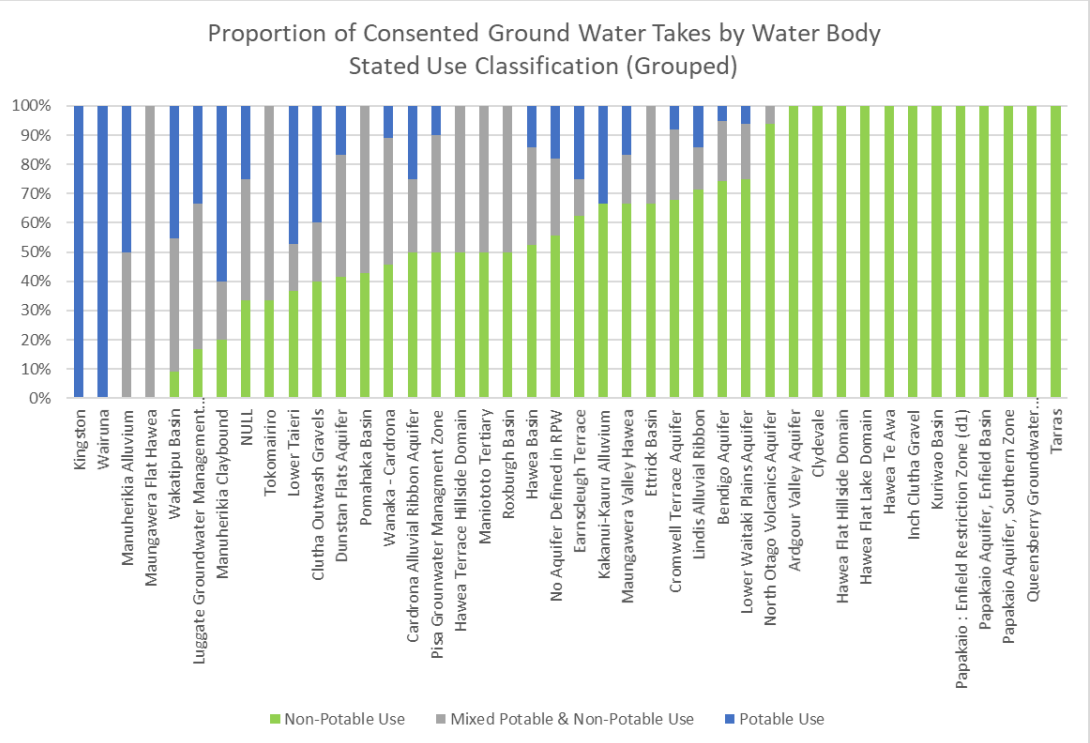


Figure 5: Proportion of consented groundwater takes (count of consent) by Aquifer and stated use (grouped)

[26] Many of these aquifers are also in areas that have high concentrations of onsite wastewater disposal and intensive land uses. ORCs responsibilities for consenting bores and takes, as well as discharges, requires consideration of the spatial distraction and colocation of activities and the potential inter-relationships and risks between them. A compliance report, *Groundwater Contamination Risk, Septic Tank Density and Distribution within Otago, 2015* highlights these potential risks. Figure 5 below highlights the density of septic tanks in areas over some of the more highly drinking water use aquifers noted above as having high proportions of consented water takes used for drinking water. Many of these properties will also use groundwater from these same aquifers as their water supply, by way of permitted takes from boreholes.

[27] Septic Tank compliance monitoring[7] suggests approximately 20% of Otago's dwellings are self-servicing for wastewater, including long drop and composting toilets. No data is currently available to definitely determine self-supplier status for water supply, but is likely to be a slightly lower proportion (as water supplies are easier to roll out than wastewater and have a greater coverage, and many consented takes serve more than one dwelling and the regions extensive irrigation networks are also water supplies). Areas where onsite wastewater treatment is predominant are also more likely to be self-servicing for water supply, with a significant regional bias towards groundwater sources. The colocation of groundwater supply and onsite wastewater treatment is of increasing concern[8].

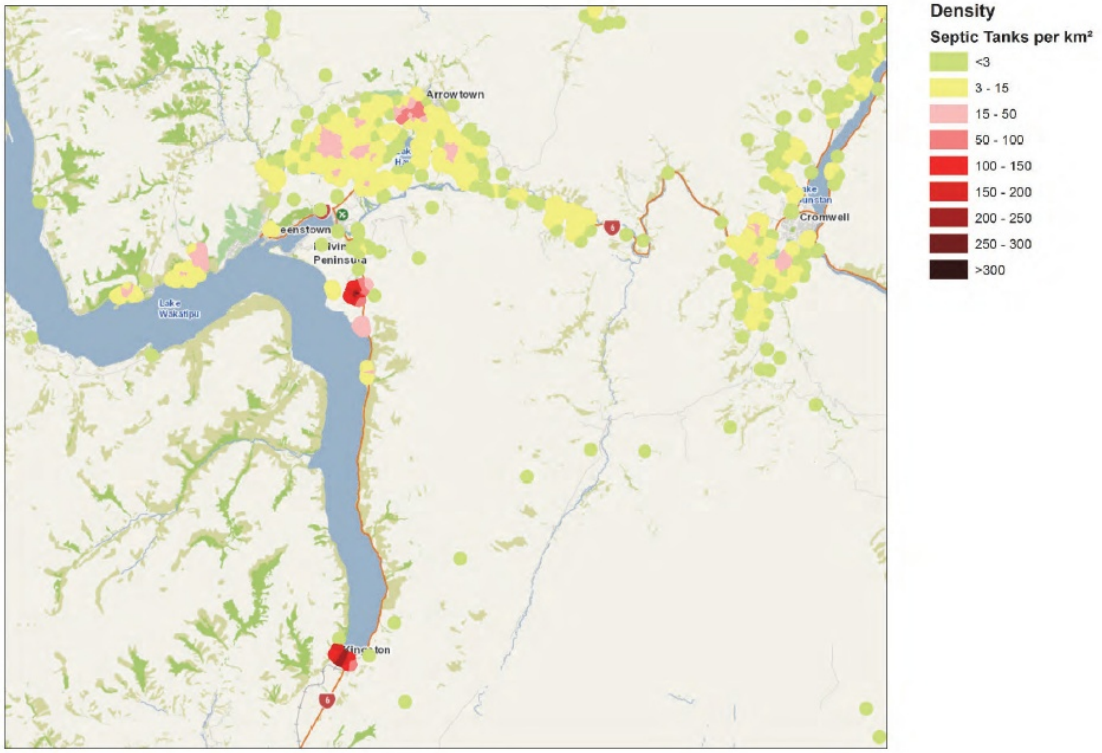


Figure 6: Septic Tank Density Mapping: Kingston, Arrowtown and Cromwell Source: Figure C.4 Groundwater Contamination Risk and Septic Tank Densities in Otago, p35

[28] Attachment 2 also includes a list of the region's Drinking Water Supplies and their compliance ratings summarised from the drinking water register, also available to the public via: https://www.drinkingwater.esr.cri.nz/supplies/Suppliescompliance.asp. In summary this data highlights that on the whole most suppliers met most criteria, many did not, particularly against the 'protozoan standard', which typically relates to

[7] Source: ORC, *Field Inspections Summary: Taieri Mouth, Hawea Flat & Kingston, May 2018*

[8] "…there may be up to 14,600 septic tanks in the Otago region with an estimated 2200 to 7300 of these in some stage of failure, and 2500 exceeding the threshold for their PC 6A nitrogen protection zone. This investigation also finds that approximately 70% of the aquifers within Otago may be at medium or high risk of contamination from surface sources.", ORC, *Groundwater Contamination Risk and Septic Tank Densities in Otago, p2*

cryptosporidium, generally a marker of animal or human faecal presence in source water. The existence of contaminants in source water and the impacts of land use including via stormwater and runoff from land uses increasing these waterbody contaminant loadings fall within ORCs area of responsibility.

[29] The NES-DW complements the Health Act 1956 legislation for improving drinking water supply and delivery, ensuring a comprehensive approach to managing drinking water from source to tap. The NES-DW concentrates on protecting the quality of existing drinking water sources from degradation, measured as a function of any alteration to current water treatment requirements to meet the Drinking Water Standards, which are a specific regulation under the Health Act 1956[9], and were voluntary up until late 2019[10].

[30] This obligation in plan making and consenting requires Regional Councils to understand both the key factors that determine whether water is safe to drink, and how existing and new activities in a source catchment may impact on the ability of a water treatment plant to produce safe water under its current treatment regimes, which is a specialised skillset (largely residing in drinking water suppliers), technically difficult and time-consuming, making it difficult to comply with statutory timeframes in consent decision frameworks in particular.

[31] Once water is taken, its treatment, reticulation and quality at the point of supply to the end user is not an RMA responsibility of Regional Councils (see RMA Section 2 definition of water). Those specific responsibilities rest with water suppliers, who are regulated under the Part 2A of the Heath Act 1956, the Ministry of Health, the Medical Officer of Health.

[32] Territorial local authorities (who are also often water suppliers either directly or via an intermediary) also have certain obligations under the Local Government Act 2002 with respect to water services. These current approaches implicitly recognise that high quality source water enables safer, more efficient and lower cost, resilient water supply.

[33] The RMA and NES-DW are not exhaustive of Regional Councils' responsibilities for the quality of sources of drinking water, and Regional Council are required to communicate and work with drinking water suppliers, and consumers to ensure quality is maintained, and act without delay, and utilise any power to ensure continued safe drinking water supply, in response to information, issues or adverse events.

Health Act 1956

[34] Part 2A of the Health Act 1956 would be replaced and repealed by the Water Services Bill if passed, with most existing Ministry of Health functions, and associated requirements for drinking water suppliers to supply information, transferring to Taumata Arowai. Regional Councils have a very limited, but important role under the Health Act, and have an active duty to act, including undertaking any action required to ensure an adequate supply of drinking water and inform water suppliers, health

[9] The NZDWS will themselves be replaced by new drinking water standards, complemented with new 'aesthetic values' both to developed by Taumata Arowai under the Water Services Bill, and compliance with them by Drinking Water Suppliers will also be mandatory.

[10] Amendments to make compliance mandatory reflected recommendations from the Havelock North Enquiry.

authorities and in relation to any information it may have (or reasonably ought to have) in relation to potential health impacts as a result.

[35] Protection of the source water is possibly the most important barrier because it reduces the contaminant load that needs to be removed later. This is where ORCs responsibilities lie and emphasises the genesis of the NES-DW which seeks to strengthen this barrier. *Figure 7* below illustrates the multiple barrier approach:

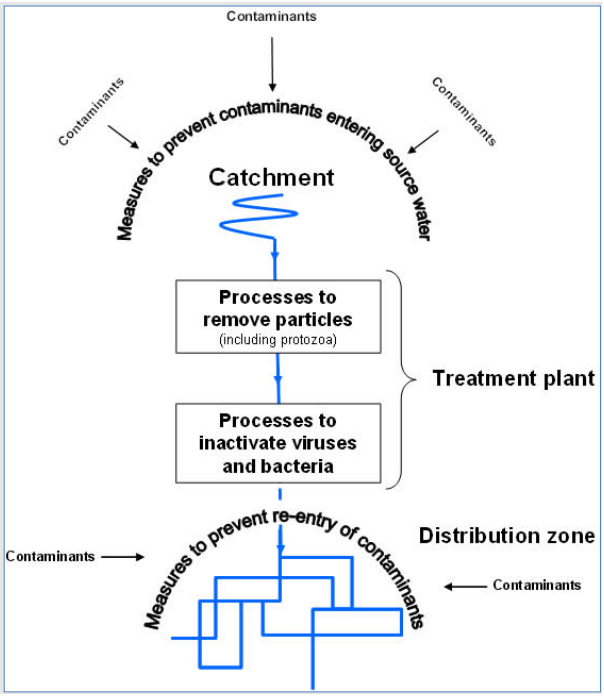


Figure 7: Multi-Barrier Approach to Water Supply Risk Management. ORCs duties and responsibilities apply mainly at the catchment or source protection level. Source: MfE.

[36] ORC's responsibilities largely relate to the control of land uses and water takes in the catchment through plan making (the setting of permitted activity thresholds, and rules for when activities need consent), as well as consenting various activities under those plans and rules, and taking actions as a result of general state of the environment or more specific compliance monitoring.

[37] ORC's role in implementing the NES-DW requires managing land uses that may or are likely to increase the concentration of microbial contaminants in source water, such as human or animal waste (for example from community or onsite wastewater treatment, or farming practices) as well as boreholes and earthworks on aquifers; and managing the risk from chemical contaminants, such as controlling the location of new industrial activities or chemical storage sites, or providing information on known natural contaminants (such as arsenic) and in the management of known contaminated land or sites, including the relationship with natural hazards.

Responsibilities in Detail

Monitoring of Water Quality

[38] The maintenance, enhancement and monitoring of drinking water source quality is a Regional Council responsibility. ORC's SOE based monitoring of surface and ground water provides a sound baseline for identifying long term change, and rapid response where this low frequency (typically monthly) monitoring identifies issues, and imposition of standards for boreholes and takes, also contribute to achieving quality source water including for self-suppliers accessing surface and ground water resources.

[39] ORC has a State of the Environment (SOE) monitoring programme for freshwater (lakes and rivers), groundwater and the marine environment. SOE monitoring involves assessing the condition of the environment by setting targets, monitoring, analysing and interpreting data, then reporting findings, and continuing this process over time[11].

[40] Monthly SOE water quality testing is carried out at 104 river sites and 14 lake sites around Otago. The SOE rivers monitoring programme generally focusses on areas at the bottom of catchments so Council can make informed decisions about the wider catchment area. SOE monitoring results are based on five years of data taken when the flow site was at or below median flow.

[41] Council's river and lakes SOE monitoring programmes were externally reviewed by NIWA in December 2017 to ensure the programmes are fit for purpose in terms of the site network, variables monitored and monitoring methods. The programmes were amended according to the recommendations in the NIWA report.

[42] Council has been monitoring groundwater quality throughout the region on a regular basis since 1995 to ensure safe drinking water and to gain a better understanding of variation in the region. Groundwater quality and water level (quantity) is measured at 55 bores (as of July 2020) at quarterly intervals.

[43] ORC's groundwater SOE monitoring programme was externally reviewed by Pattle Delamore and Partners (PDP) in August 2017. The desktop review suggested that the overall monitoring of groundwater in the region is appropriate and generally consistent with the requirements of the NPS-FM (2017) and the Regional Plan: Water. The frequency of groundwater quality monitoring and the list of parameters was deemed appropriate.

[44] The PDP review provided a number of recommendations and Council is working through them, some of which are in the LTP. One recommendation is the installation of monitoring bores in aquifers where monitoring is lacking. These include Bendigo/Tarras, Papakaio, Kingston and Glenorchy. Glenorchy was added to the network in October 2019.

[45] Council also carries out a recreational water quality monitoring programme, often referred to as "contact recreation monitoring", over summer at 25 popular swimming spots across Otago. *E.coli* is monitored at freshwater sites, while *enterococci* is the preferred indicator at marine sites.

Regulatory: Resource Consenting

[11] https://www.qualityplanning.org.nz/node/1035

[46] Regional Councils have a statutory responsibility for making determinations on whether approval of a consent application is consistent with the general provisions of the RMA and the specifics of the NES -DW[12].

[47] Regional Council obligations on granting consent arise in two relevant situations:

i. Consenting activities which may adversely affect water bodies used for drinking water supplies; and
ii. Consenting the taking of water for human consumption (where this exceeds the section 14 domestic use and stock watering allowances).

[48] Regional Councils need to consider whether consent should be granted and if so, on what conditions. While a consent is live, Regional Councils may under certain circumstances review the conditions of consent at the granting council's cost (RMA s128/129). This may be an area where a submission could highlight potential improvements in process, for example adding "to protect the quality of drinking water sources" to the specific reasons why a consent's conditions can be reviewed. Note that a condition review cannot have the effect of negating the consent.

[49] Council is continually amending the "Standard Conditions Manual" (a document developed and used by the ORC Consents Team as a reference and source of best practice and standard wordings for consent conditions) as more research and learnings come to light. For example, in May, the Consents team added arsenic to the Manual as a possible parameter to sample for during a bore installation given the occurrence of arsenic in groundwater, especially in the Queenstown-Lakes District. During that time the team also added a new Advisory Note to the Conditions Manual for Land Use, Bore and Drillholes consents:

> *Advice Note X: Water Testing for Drinking Water Use*
> *It is the responsibility of the consent holder to ensure that the water abstracted under this resource consent is of suitable quality for its intended use. Where water is to be used for human consumption, the consent holder should have the water tested prior to use and should discuss the water testing and treatment requirements with a representative of the Ministry of Health and should consider the following Drinking Water Standards.*

[50] Council's groundwater team is working on further consent conditions regarding groundwater to continually improve outcomes for the environment and end users. However, conditions can only be legally imposed that are within the scope of the activity applied for.

Regulatory: Compliance and Enforcement

[51] Regional Councils monitor activities within their region and consider taking enforcement action using the tools available under the RMA where there is any non-compliance. There are three components to Council's regulatory compliance role:

a. Monitoring of resource consents and some permitted activities;
b. Responding to environmental incidents (pollution hotline); and

[12] https://www.mfe.govt.nz/publications/rma/draft-users-guide-national-environmental-standard-sources-human-drinking-water/2

c. Enforcing compliance with the RMA, our regional plans and with national environmental standards and regulations.

[52] The Otago Regional Council Compliance Plan 2020-22 applies a risk-based approach to prioritising compliance monitoring and enforcement activities across the Otago region. The purpose of the Compliance Plan is to improve environmental outcomes associated with the activities ORC regulates such as discharges to land, water and air, and the take and use of water; to identify and prioritise the compliance, monitoring and enforcement activities that the ORC will focus our resources on over the next 18 months; and to inform communities and consent holders in Otago about the compliance activities ORC undertakes to protect our environment, encourage compliance and good practice, and improve environmental performance and raise environmental awareness. This approach is consistent with the Water Services Bill requirements for Taumata Arowai to develop its own graduated and targeted response to enforcement.

[53] The Compliance Plan identifies actions, outputs and outcomes in relation to drinking water as follows:

Action	Compliance team outputs	Outcome
Water takes **Issue:** Taking more water than is consented is unlawful and can adversely affect mauri, freshwater habitats and other water users.		
Monitor water takes in Otago.	• Undertake desktop, aerial or on-site monitoring of water permits based on catchment risk, and policy development requirements under the NPSFM. • Focus on Upper Taieri, Manuherikia, Cardrona, Pisa, Gibbston and Central Otago catchments. Work proactively with water users to reduce incidents of non-compliance. • Appropriate action where breaches of consent conditions, plan rules or water measuring regulations are identified.	• Improved compliance with rules and consents conditions. • Impacts on freshwater and habitats are reduced. • Improve the reliability of data records provided by consent holders.
Deemed permits As deemed permits expire in 2021, the compliance team have a key role to support the replacement process.		
Monitor deemed permits and work proactively with permit holders to replace deemed permits.	• Undertake desktop, aerial or on-site monitoring of deemed permits where monitoring data is required to support the assessment of renewal applications. • Work proactively alongside the irrigation companies to support with the transfer of deemed permits to resource consents. • Focus on Upper Taieri, Manuherikia, Cardrona, Pisa, Gibbston and Central Otago catchments.	• Deemed permits are replaced by resource consents. • Impacts on freshwater and habitats from non-compliance are reduced. • Improve the reliability of data records provided by consent holders.
Water flows and levels during dry periods		

Issue: During dry weather, water takes during low flows have greater impacts on freshwater.		
Ensure minimum flows are maintained during dry weather periods.	• Establish dry weather task force prior to dry weather conditions affecting flows. • Monitor low flow conditions and work proactively with permit holders to ensure minimum flows are maintained during low flow periods. • Issue water shortage directions where required. • Monitor residual flows on permits and prioritise this based on the level of risk. • Appropriate action where breaches of consent conditions or plan rules are identified.	• Compliance with minimum and residual flows is improved. • During low flows impacts from water takes on freshwater and habitats are reduced.

[54] Many activities, including water takes (source water for drinking water supplies) and discharges (potential source of contamination such as septic tanks) may be operating under a permitted activity rule within the Regional Plan: Water. The permitted activity standards for discharges recognise individual activities on their own will probably not cause issues. However, where they are concentrated, poorly designed or maintained, or co-located with self-suppliers ground water takes are likely to result in conditions that will require new approaches in some areas.

[55] Controlling domestic or stock takes is more complex, as s14(3) of the RMA expressly allows the take of water for "reasonable domestic purposes" (including drinking water) and for animal drinking water. In practice this means in Otago these takes are not regulated or managed, or even known. As Council may not know where these activities are located and therefore may not know if a risk to a user exists from a water source. Wherever possible private bore supplies are considered, both in their proximity to consented discharges, and the impact of consented groundwater takes.

[56] Educational material is now available on ORCs website and is proactively supplied to known bore owners when councils monitoring identifies quality issues in aquifers, and through general reminders such as press releases, social media and other channels.

[57] Work on these three drinking water papers, particularly as a result of changes to the Water Services Bill, highlights that there is a potential need for a review of ORC's role, responsibilities and work programmes to address Drinking Water more comprehensively and holistically (particularly alongside other ongoing freshwater reforms, including the NPSFM). This would be undertaken once the final form, nature and timing of the Water Services Bill and associated structural reforms are clearer, and dovetails into existing and evolving work programmes. Additional resource requirements are being developed for this proposal via the LTP.

Working with territorial authorities (TAs)

[58] TAs carry out, commission or otherwise provide for the taking, treatment and supply of potable water for their communities, as required under the Local Government Act 2002

(i.e. they act as, or directly control community drinking water suppliers), and Regional Councils' responsibilities are to maintain and enhance the quality of natural water sources, these particular functions are highly complementary.

[59] Because drinking water suppliers are not taking water for individual use, they need Regional Plan resource consents enabling them to take water from water bodies and use that water (after any needed treatment required to meet the Drinking Water Standards for human consumption). The Regional Council is the source regulator and is responsible for monitoring compliance. To that extent it must engage with the TA, but without abdicating its role as regulator. Within this constraint, it is desirable for Regional Councils and TAs to work to ensure water quality for human consumption is not compromised. The Regional Council controls activities, in part so that the source won't be too expensive or difficult to treat or become unsuitable as a source, while the TA (or suppliers) does all necessary treatment to ensure it is safe.

[60] As an example, ORC has been working closely with Queenstown Lakes District Council, Public Health South and the Medical Officer of Health in a joint investigation into naturally occurring arsenic contamination of a water supply in Queenstown.

Local Government Act 2002

[61] The purpose of Local Government under the LGA 2002 (section 10) is to enable democratic decision making and action by and on behalf of communities, and to promote the social, economic, environmental, and cultural well-being of communities in the present and for the future. This purpose applies to Regional Councils and Territorial Authorities.

[62] These duties and responsibilities impact on how TAs undertake their water supply responsibilities and are also relevant to how they interact with Regional Councils in the taking of water for drinking water purposes, and in engagement with Regional Councils responsibilities to maintain source water quality for community use as well as more environmental reasons.

[63] More detail of the LGA requirements are included in Attachment 1. The Water Services Bill proposes amendments to the LGA to increase the requirements on TAs, including strengthening the existing supply requirement to a duty to ensure that communities always have access to safe drinking water. The requirements for assessment and risk assessment requirements are also increased and TAs must make provision to take over failing suppliers if required.

[64] Changes suggested by the Water Services Bill and parallel reforms may mean that larger more organised and risk aware and adverse drinking water suppliers could seek more stringent enforcement of existing water quality requirements (influencing ORCs consent monitoring and enforcement), seek greater control over quantity availability (to maintain certainty of supply, impacting on ORC's allocation frameworks) and strongly advocate for water quality improvements and quantity changes through consenting and plan making processes (a new motivated, well-resourced and evidence-based submitter and stakeholder with particular statutory responsibilities and biases towards high water quality outcomes).

Notification of Drinking Water Quality Issues

[65] When a Regional Council holds information suggesting people may be adversely affected by the quality of the drinking water, the Council has a duty to notify the appropriate authorities, including Public Health South (which includes the Medical Officer of Health). The local council, any drinking water suppliers and those potentially affected. Regional and Local Councils must also utilise any power under any legislation and take actions to hasten the return of safe drinking water supplies where they are interrupted.

[66] For the most part, ORC's State of the Environment (SOE) Monitoring programme is the source of this information, though ORC may also become aware of actionable information though site inspections, consent monitoring, public advice, or a range of other means.

[67] The rivers and lake SOE monitoring programme data is primarily designed to provide a long-term high-quality reference point for key environmental indicators. The data is primarily reported annually on Council's website through "Report Cards". This is a summary of annual changes based on a 5-yearly dataset. A more comprehensive report is prepared every 5 years to inform Otago's state of the environment based on the NPS-FM requirements.

[68] Site and indicator monitoring frequency varies and SoE monitoring is not specifically designed to target indicators for human drinking water standards. Nevertheless, this monitoring provides a baseline for identifying long term water body changes, and can also assist drinking water suppliers including self-servicing users of issues where they are identified, such as groundwater *E.coli* contamination.

[69] The SOE data is made available on the LAWA website (https://www.lawa.org.nz/) on an averaged 5 yearly basis. The annual upload of averaged data means that the LAWA website could be missing the most recent water quality data, which is collected monthly. In contrast, the LAWA website is also the reporting vehicle for data for Council's "contact recreation" programme, that includes water quality parameters and information, this data is 'live' and reported more or less as soon as results are received. Water quantity data is also reported live. The different approaches reflect the nature of the attribute, with quantity currently requiring sample and test, with flow being able to be monitored constantly and automatically. With further improvements to sensors and data management (eg Aquarius), this gap will reduce but some quality parameters will still require sampling.

[70] In March 2020, Council staff devised an internal process for the "Notification of Poor Bore Water Quality" for groundwater. This ensures Council follows a set process for notifying stakeholders of water quality that fails to meet the DWS NZ, in bores monitored by Council under its SOE programme or identified through self- or compliance monitoring.

[71] Council educates on well/bore safety through the provision of information such as the "How to protect your well water" on Council's website[13]. ORC also makes fact sheets available to the public in relation to specific contaminants, such as arsenic[14].

[72] A similar approach is taken to surface water, noting that there is less information about the location and end use of small domestic or stock water takes from surface water bodies making it very difficult to notify smaller users directly. Larger suppliers should already monitor intake water quality and are identified (see Figures 1 and 2), and contacted as required.

Policy and Strategy

[73] Council is responsible for managing water quality and quantity in Otago under the RMA. This involves developing regulatory and non-regulatory methods, in line with legislation to:

a. make sure water quality is maintained or improved
b. decide how much water can be taken for consumptive or non-consumptive use to ensure water quantity is maintained
c. manage what can be discharged into water or to land in circumstances where it may enter water
d. manage activities, including land uses, that affect the beds of lakes and rivers, and regionally significant wetlands and their ecosystems.

[74] It does this through regional policy statements and regional plans. These set out the objectives that the regional council is trying to achieve and the rules and methods, including non-regulatory methods they've put in place to get them there[15].

[75] Direct source protection is generally managed by the drinking water supplier, where possible often by direct control (ownership of the majority of the land surrounding the reservoir for example) or designation, but there will be many instances where the source, or its catchment(s) overlaps with or is affected by private land use, especially in run-of-river situations or for small domestic takes, and ORC has responsibilities under the Health Act 1956 to act positively to react to information and ensure quality can be maintained.

[76] Groundwater sources are particularly susceptible to impacts from land uses and discharges (including from onsite wastewater treatment and other discharges to land, but also from increased urbanisation and associated impervious surface creation and stormwater systems affecting recharge rates, and abstraction for rural and urban uses), including groundwater used by domestic self-suppliers (e.g. bore water)[16]. Council has identified a number of Groundwater Protection Zones in the Water Plan for safeguarding the life-supporting capacity of aquifers. Council also required to review the efficiency and effectiveness of its provisions every 5 years.

[13] https://www.orc.govt.nz/media/5634/bore-brochure.pdf / https://www.orc.govt.nz/managing-our-environment/water/groundwater/how-to-protect-your-groundwater-bore-head
[14] https://orc.govt.nz/media/3813/groundwater-quality-2009-low-res.pdf
[15] https://www.mfe.govt.nz/fresh-water/we-all-have-role-play/roles-and-responsibilities-managing-freshwater
[16] https://www.orc.govt.nz/media/3798/wakatipu-aquifers-groundwater-investigation-report-web.pdf

[77] The policy team's current work programme to give effect to the NPS-FM, NES-FWM and the Skelton Review provide significant opportunity to address shortcomings in this area, as well as incorporate potential changes from the Water Services Bill.

[78] Science and Monitoring are also developing programmes to respond to identified and emerging issues.

[79] The changes are likely to require further resource and investment, and staff from across the Council are currently considering the operational, consenting, compliance and policy implications of the proposed reforms for consideration as part of the Long Term Planning process.

DISCUSSION

[80] The detail of ORC's current responsibilities and areas of current focus are outlined above. Further work on improving source water quality is likely due to the convergence of NPSFM and the Water Services Bill and associated structural reforms.

OPTIONS

[81] This is a Noting Paper. Options for making a submission on the proposed Water Services Bill are proposed in the Water Services Bill paper.

CONSIDERATIONS

[82] This is a Noting Paper. Relevant considerations are outlined in the Water Services Bill paper.

Policy Considerations

[83] There are no relevant policy considerations.

Financial Considerations

[84] There are no relevant financial considerations.

Significance and Engagement

[85] There are no relevant Significance and Engagement considerations.

Legislative Considerations

[86] There are no relevant legislative considerations.

Risk Considerations

[87] There are no relevant risk considerations.

NEXT STEPS

[88] ORC current responsibilities are focussed on maintaining or enhancing source water body quality. Changes have recently occurred, and more are expected in the legislative framework driving these responsibilities. The direction of these changes is to improve

water quality generally, and specifically where water bodies are human drinking water sources. This is likely to require additional work and resource but will largely dovetail with existing work programmes. Particular considerations for seeking to amend this are outlined in the Water Services Bill paper, and further proposals for additional resource are being developed for the forthcoming LTP from across the Council group.

ATTACHMENTS

1. DRINKING WATER LEGISLATIVE DETAILS [**7.1.1** - 6 pages]
2. Drinking Water Standards Report 2018 Registered Drinking Supplies Accross Otago [**7.1.2** - 5 pages]

DRINKING WATER LEGISLATIVE DETAILS

Resource Management Act 1991

[1] Under the RMA, ORC has a range of general and specific duties, functions and powers in relation to water quality and quantity, with more specific duties relating to water bodies used for human consumption, articulated in more detail under regulations.

[2] A Regional Council's functions are defined in section 30 of the Act. They include (focussing on those relevant to water quality generally and water supply specifically):

a. The control of the **use of land** to

i. maintain and enhance water quality in water bodies (section 30(1)(c)(ii));

ii. maintain water quantity in water bodies (section 30(1)(c)(iii))

b. The **control of the taking, use, damming and diversion of water**, and the control of the quantity, level and flow of water in any water body (section 30(1)(e))

c. The control of **discharges of contaminants to water**, whether directly or indirectly: (section 30(1)(f))

d. The strategic **integration of infrastructure with land use** (section 30(1)(f))

e. **Any other function** specified under the Act (section 30(1)(h)) - more on those specific functions is below.

[3] Regional Councils have a range of planning and consenting functions for activities relating to water.

a. Under section 35 of the RMA Regional Councils have obligations to monitor the state of the environment; the efficiency and effectiveness of regional policy statements and plans; and the exercise of resource consents. As a result of information gathered, they are required to take "appropriate action" in response,

b. Section 69 enables Regional Plans to set water quality Rules for different use classes, including that used for Water Supply (Class WS),

c. Section 70 enables Regional Plans to set Rules for the discharge of contaminants to water (either directly or indirectly), and,

d. Section 107 sets minimum standards for consenting discharges of contaminants to water.

[4] In short, Regional Councils have responsibilities in exercising functions under the Act to maintain, and in certain cases enhance, water quality and quantity. These obligations apply to both surface and ground water. Regional Councils should take account of any use of water in exercising their planning, consenting, monitoring and enforcement functions under the RMA. That responsibility has particular significance if the water is to be used for human consumption, or for stock drinking.

[5] However, this general requirement is counterbalanced by particular definitions and provisions that are relevant to water supplies and suppliers, that limit the extent of any Regional Council powers (and responsibilities), for example, the *Section 2*: *Interpretation* definition of 'water'

excludes fresh water once it is piped or reticulated, limiting the application of RMA related Plan rules and responsibilities to fresh water, only while it is in 'the environment':
water—

(a) means water in all its physical forms whether flowing or not and whether over or under the ground:
(b) includes fresh water, coastal water, and geothermal water:
(c) ***does not include water in any form while in any pipe, tank, or cistern***

a. *Section 14: Restrictions relating to water*, outlines that no person way take, use, dam, or divert any (fresh) water (i.e. remove it from the environment and put it into a pipe, tank or cistern), unless it is expressly allowed by an NES, a regional plan rule, or by resource consent, or, is allowed by the subsection (3)(b), exception where the take, use, damming, or diversion *is required to be taken or used for*
    i. *an individual's reasonable domestic needs; or*
    ii. *The reasonable need of a persons' animals for drinking water*
    And, the taking or use does not, or is not likely to, have an adverse effect on the environment

    This exception is for 'individual' household takes (for example the Regional Plan Water allows as a permitted activity domestic water takes from ground water, reflecting the small quantity taken relative to other takes in and of itself is intestinal on an individual basis[1]) and 'a person' includes legal persons, meaning water taken from a lake, stream or groundwater for *stock watering* by a company or trust or landowner does not require consent either (though allowing stock in that waterbody to drink directly, is now subject to control under the NPS-FM and existing regional plan rules).

RMA: National Environmental Standards for Sources of Human Drinking Water

[6] Particular focus is given to Regional Councils' RMA obligations for drinking water by the National Environmental Standards for Sources of Human Drinking Water[2]. The NES-SHDW requires Regional Councils to ensure that effects of activities on drinking water sources are considered in decisions on resource consents, and in developing and monitoring regional plans. Specifically Regional Councils are required to:

a. decline discharge or water permits that are likely to result in community drinking water becoming unsafe for human consumption following existing treatment (*ie, not consent any activities that allow water quality to decline such that current treatment approaches must be modified*);
b. be satisfied that permitted activities in regional plans will not result in community drinking water supplies being unsafe for human consumption following existing treatment (*i.e., ensure that permitted activities, cumulatively or individually don't degrade water quality such that existing treatment approaches must be modified*)
c. place conditions on relevant resource consents that require notification of drinking water suppliers if significant unintended events occur (e.g., spills, contamination) that may adversely affect sources of human drinking water.

[1] This permissive approach in the RMA and in the Regional Plan also means that ORC has limited information on domestic self supply and stock watering takes, including the source and location of take. The exception is takes from ground water where bore holes themselves requires consent but if the take does not exceed >25m³ per day the take itself is permitted.
[2] https://www.mfe.govt.nz/fresh-water/freshwater-acts-and-regulations/national-environmental-standard-sources-of-human

[7] Regional Councils (and TAs) must give effect to these Standards. The regulations apply whether or not they are incorporated in a regional plan. For the purpose of this NES, a human drinking water source is a natural water body such as a lake, river or groundwater that is used to supply a community with drinking water. The standard applies to source water before it is treated and only applies to sources used to supply human drinking water i.e., not stock or other animals, and a registered drinking-water supply for these 'plan making' requirements is one that *provides no fewer than 501 people with drinking water for not less than 60 days each calendar year.*

[8] Other regulations relating to consenting activities that may itself cause an event (such as a spillage of chemicals), or exacerbate the consequences of an event (e.g. downstream impacts from heavy rain and flooding) on water quality at abstraction point require consents to include a condition to inform registered drinking water suppliers and the consent authority if such an event occurs. A **registered drinking-water supply** for this 'plan implementing' regulation is one that *provides no fewer than 25 people with drinking water for not less than 60 days each calendar year.*

Health Act 1956

[9] NOTE: Part 2A of the Health Act 1956 would be replaced and repealed by the Water Services Bill if passed.

[10] Regional Councils have a very limited, but important role under the Health Act, and have active duty to act, including undertaking any action required to ensure an adequate supply of drinking water and inform water suppliers, health authorities and in relation to any information it may have (or reasonably aught to have) in relation to potential health impacts as a result.

[11] Under the Health Act, if any drinking water supplier (essentially anyone but a self-supplier) considers there is an actual or foreseeable risk to drinking water, it must

a. *Notify* a minimum of:
   i. The Medical Officer of Health (being the current regulator);
   ii. Fire and Emergency New Zealand;
   iii. Territorial authorities; and
   iv. Regional councils in the area.
b. *Request* that one or more of those notified territorial authorities and Regional Councils exercise any powers or duties under any enactment to assist the supplier to continue to provide an adequate supply of drinking water

[12] A Medical Officer of Health who believes that a source of drinking water is contaminated, may issue a notice to the territorial authority or regional council. The territorial authority and regional authority that receives a notice must:

a. Ensure that an assessment is made as to whether drinking water that is not potable has been or is being supplied to a self-supplied building water supply from the source specified in the notice and
b. If that assessment requires, take all practicable steps
   i. To warn users of that supply;
   ii. To exercise any other power or take any action to remedy the situation.

Drinking Water Standards

[13] Under Section 69Y of the Health Act, every drinking water supplier has a duty to monitor drinking water to determine whether it complies with Drinking-water Standards for New

Zealand 2005 (Revised 2018) (DWSNZ). Prior to the 2018 revision, the DWS were not compulsory, this change was implemented as a result of the Havelock North Reports. They also have a responsibility to maintain and treat their own supply. Under section 69U of the Health Act, every drinking water supplier has a duty to take reasonable steps to contribute to the protection of sources of drinking water. Under section 69V of the Health Act, every drinking water supplier has a duty to comply with the DWSNZ.

[14] The Health Act does not apply to domestic household supplies if the house has its own water supply. Whether to treat tank water is a decision for each owner depending on individual circumstances and preference. gReal choice is however a function of both knowledge and the ability to change practices, sources or obtain alternative supplies, or even practically and affordably test and treat water, and this is an area for considerable improvement for most self-supplying households. ORC has taken an educative approach to this, for example by providing brochures: https://www.orc.govt.nz/media/5634/bore-brochure.pdf and taking more direct actions such as informing bore consent holders where groundwater monitoring indicates issues and facilitating new consents where required.

[15] Pursuant to section 69O(1) of the Health Act 1956, the Minister of Health issues Drinking-Water Standards for New Zealand (DWSNZ), the latest version being revised in 2018[3] (from the last revision in 2008 coinciding with the release of the NES-HDWS), incorporating many of the recommendations of the 2017 Havelock North Contamination Enquiry.

[16] The DWSNZ provide requirements for drinking-water safety by specifying the:

iii. maximum amounts of substances or organisms or contaminants or residues that may be present in drinking-water;
iv. criteria for demonstrating compliance with the Standards;
v. remedial action to be taken in the event of non-compliance with the different aspects of the Standards;
vi. contain comprehensive information for owners and operators to assist in the management of public and private drinking-water suppliers;
vii. require routine monitoring of total coliforms; and enumeration testing for *E.coli* and total coliforms

[17] The DSWNZ are highly technical and directed towards those involved with regular testing, professional suppliers and the public health officers who regulate them. To improve compliance and understanding, the Ministry for the Environment[4] provides a 'beginners guide' to the DWSNZ for assist those who have had little previous involvement with water quality in relation to public health, such as Regional ouncil staff and resource consent applicants with the information they need about the DWSNZ in making and assessing applications and assessing compliance with it, including assessing consents and plans under the NES-HSDW.

[18] Water quality monitoring has been the backbone of water quality management for many years. Relying solely on monitoring as the basis for water supply management, however, is a poor defence against water-borne contaminants. Unless monitoring is continuous, results will always provide lagged or 'historical' water quality information because of the time between sample frequencies, as well as the time taken to obtain and analyse samples. Consequently, consumers may have been receiving contaminated water for some time before a water supplier learns of contamination of the supply.

[3] https://www.health.govt.nz/publication/drinking-water-standards-new-zealand-2005-revised-2018
[4] https://www.mfe.govt.nz/node/15486 Note: the MfE guidance refers to the 2008 update

[19] The DWSNZ include the principles and techniques of a risk-based approach to supply management, that requires water suppliers to identify what might go wrong with each part of their supply and to reduce the likelihood of these things happening. Monitoring is not dispensed with and is still necessary to check that the other precautions taken by each water supplier are working and to provide the backbone quality assurance.

[20] Protection of the source water is possibly the most important barrier because it reduces the contaminant load that need to be removed later. This is the level where ORCs responsibilities lie, and the reason for the development of the NES-HDWS is to strengthen this barrier. Figure 1 below illustrates the multiple barrier approach:

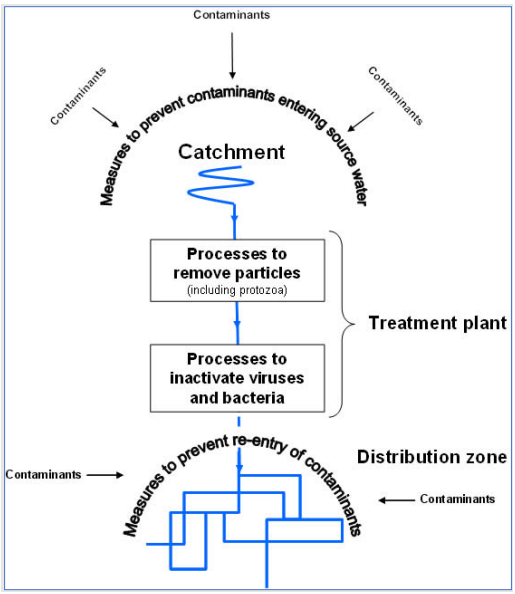


Figure 1: Multi-Barrier Approach to Water Supply Risk Management. ORCs duties and responsibilities apply mainly at the catchment or source protection level.

[21] ORCs responsibilities largely relate to the control of land uses in the catchment through plan making, which includes the setting of permitted activity standards and thresholds for consents, and plan implementation including consenting activities, and taking actions as a result of general state of the environment or more specific compliance monitoring.

[22] ORCs role in implementing the NES-HSDW requires managing land uses that may increase the concentration of microbial contaminants in source water, such as human or animal waste (for example from community or onsite wastewater treatment, or farming practices) as well as boreholes and earthworks on aquifers; and managing the risk from chemical contaminants, such as controlling the location of new industrial activities or chemical storage sites, or providing information on known natural contaminants (such as arsenic) and in the management of known contaminated land or sites, including the relationship with natural hazards.

Local Government Act 2002

[23] The purpose of Local Government under the LGA 2002 (section 10) is to enable democratic decision making and action by and on behalf of communities, and to promote the social, economic, environmental, and cultural well-being of communities in the present and for the future. Specific requirements for Territorial Authorities in relation to the provision of Water Services to their communities exist under sections 125-136.

[24] Minor amendments are expected to the Water Services sections of the LGA as a result of structural reforms, but the proposed reforms are within the parameters of the Act as it currently stands.

[25] S130 outlines specific obligations in respect to water services (the definition includes water supply), where the local government organisation (LGO) that provides water services must continue to provide water services and maintain its capacity to do so, including not using water assets for security, divesting ownership or interests except to another LGO, and not lose control, sell or otherwise dispose of significant infrastructure necessary for meeting these needs. There are also restrictions on restricting or stopping water supplied except under very specific circumstances, and even in those cases must not result in insanitary conditions. S131 does allow for specific closure or transfer of 'small water services' (>200 persons) under very stringent circumstances. S136 allows the contracting out of any aspect of the operation of water services, for periods not exceeding 35 years, providing the LGO remains legally responsible for providing the services, and retains control over pricing or services, and water services policy development.

[26] S125 provides that TA must assess from time to time, the provision of water and other sanitary services within its district. S125 states the purpose of these assessments is to assess, from a public health perspective, the adequacy of any water or other sanitary service to communities in the district in light of:

a. Health risks to communities relating to any absence or deficiency of service;
b. The quality of services;
c. Current and estimate future demands for such services;
d. The extent to which drinking water supplied by water suppliers mees regulatory standards; and
e. The actual or potential consequences of stormwater and sewerage discharges in the district.

[27] The Water Services Bill amends and strengthens these particular provisions by adding specific and regular review timeframes (5 yearly), specific risk identification and development of mitigation strategies and imposes a stronger mandate on water suppliers to continue to provide water to communities at all times. Further detail is included int eh Water Services Bill Paper.

Attachment 1 : Registered Network Supplies Across Otago:
Source: Appendix 1 to the Ministry of Health Annual Report into Drinking Water Supplies; June 2019

Scheme Name - TA Location	Population Served	Health Act	Drinking Water Standard	Comment
Camphill Estate Utilities Society[1]	132	Fail	Fail	The water supply uses surface water, without disinfection. Camphill Estate did not take reasonable steps to protect the water from contamination and did not take enough *E. coli* samples and failed other monitoring requirements, and therefore failed to comply with the Health Act (sections 69U and 69Y). Because of this, Camphill Estate failed the bacterial Standards; it also failed the protozoal Standards but met the chemical Standards for the whole supply.
Cardrona Township	300	Fail	Fail	The water supply uses surface water and is chlorinated and treated by UV. Cardrona Township did not take reasonable steps to protect the water from contamination, did not take enough *E. coli* samples and failed other monitoring requirements and failed to investigate complaints. It therefore failed to comply with the Health Act (sections 69U, 69Y and 69ZE). Because of this, Cardrona Township failed the bacterial Standards; it also failed the protozoal Standards but met the chemical Standards for the whole supply.
Alexandra - CODC	5000	Complied	Fail	The water supply uses groundwater and is chlorinated. Alexandra met the bacterial and chemical Standards but failed the protozoal Standards for the whole supply.
Clyde - CODC	1000	Complied	Fail	The water supply uses groundwater and is chlorinated. Clyde met the bacterial and chemical Standards but failed the protozoal Standards for the whole supply.
Cromwell - CODC	4400	Complied	Fail	The water supply uses groundwater and is chlorinated. Cromwell met the bacterial and chemical Standards but failed the protozoal Standards for the whole supply.
Naseby- CODC	150	Complied	Fail	The water supply uses surface water and is chlorinated. Naseby met the bacterial and chemical Standards but failed the protozoal Standards for the whole supply.
Omakau/Ophir- CODC	400	Complied	Fail	The water supply uses surface water and is chlorinated. A temporary boil-water notice was issued during the period. Omakau/Ophir met the bacterial and chemical Standards but failed the protozoal Standards for the whole supply.
Patearoa- CODC	260	Complied	Fail	The water supply uses surface water and is chlorinated. A temporary boil-water notice was issued during the period. Patearoa met the bacterial and chemical Standards but failed the protozoal Standards for the whole supply.
Pisa Village- CODC	250	Complied	Fail	The water supply uses groundwater and is chlorinated. Pisa Village met the bacterial and chemical Standards but failed the protozoal Standards for the whole supply.
Ranfurly- CODC	750	Complied	Fail	The water supply uses surface water and is chlorinated. Ranfurly met the bacterial and chemical Standards but failed the protozoal Standards for the whole supply.
Roxburgh – CODC	790	Complied	Fail	The water supply uses groundwater and is chlorinated and treated by UV. A temporary boil-water notice was issued during the period. Roxburgh met the bacterial and chemical Standards but failed the protozoal Standards for the whole supply.
Closeburn Water Company	150	Fail	Fail	The water supply uses surface water, without disinfection. Closeburn failed to provide adequate safe drinking water, did not take reasonable steps to protect the water from contamination, did not take any *E. coli* samples and failed to investigate complaints. It therefore failed to comply with the Health Act (sections 69S, 69U, 69Y and 69ZE). Because of this, Closeburn failed the bacterial Standards; it also failed the protozoal Standards but met the chemical Standards for the whole supply.
Balclutha - CDC	3918	Complied	Fail	The water supply uses surface water and is chlorinated and fluoridated and treated by UV. Balclutha met the bacterial and chemical Standards but failed the protozoal Standards for the whole supply.
Clydevale – Pomahaka Rural - CDC	778	Complied	Fail	The water supply uses groundwater and is chlorinated. Clydevale-Pomahaka Rural met the bacterial and chemical Standards but failed the protozoal Standards for the whole supply.

[1] Information obtained from Appendix 1 to the Ministry of Health Annual Report into Drinking Water Supplies; June 2019

Attachment 1 : Registered Network Supplies Across Otago:
Source: Appendix 1 to the Ministry of Health Annual Report into Drinking Water Supplies; June 2019

Scheme Name - TA Location	Population Served	Health Act	Drinking Water Standard	Comment
Glenkenich Rural - CDC	705	Fail	Fail	The water supply uses surface water and is chlorinated. A temporary boil-water notice was issued during the period. Glenkenich Rural did not take enough *E. coli* samples and did not take appropriate action to protect public health after an issue was discovered, therefore failed to comply with the Health Act (sections 69Y and 69ZF). Glenkenich Rural also had some disinfection by-products that exceeded maximum acceptable values, and therefore failed to meet the chemical Standards for the whole supply. Glenkenich Rural met the bacterial Standards but failed the protozoal Standards for the whole supply.
Kaitangata - CDC	812	Fail	Fail	The water supply uses surface water and is chlorinated and fluoridated. Kaitangata did not have a water safety plan, and therefore failed to comply with the Health Act (section 69Z). Kaitangata met the bacterial and chemical Standards but failed the protozoal Standards for the whole supply.
Lawrence - CDC	417	Complied	Fail	The water supply uses surface water and is chlorinated and treated by UV. Lawrence met the bacterial and chemical Standards but failed the protozoal Standards for the whole supply.
Milton – CDC	2529	Fail	Fail	The water supply uses surface water and is chlorinated and fluoridated. Milton did not take enough *E. coli* samples and did not take appropriate action to protect public health after an issue was discovered, and therefore failed to comply with the Health Act (sections 69Y and 69ZF). Milton also had one disinfection by-product that exceeded maximum acceptable values, and therefore failed to meet the chemical Standards for 1,929 people. Milton met the bacterial Standards but failed the protozoal Standards for the whole supply.
Moa Flat - CDC	534	Complied	Fail	The water supply uses surface water and is chlorinated. Moa Flat met the bacterial and chemical Standards but failed the protozoal Standards for the whole supply.
North Bruce Rural – CDC	928	Fail	Fail	The water supply uses surface water and is chlorinated. North Bruce Rural did not take enough *E. coli* samples and did not take appropriate action to protect public health after an issue was discovered, and therefore failed to comply with the Health Act (sections 69Y and 69ZF). North Bruce Rural also had some disinfection by-products that exceeded maximum acceptable values, and therefore failed to meet the chemical Standards for 658 people. North Bruce Rural met the bacterial Standards but failed the protozoal Standards for the whole supply.
Owaka – CDC	303	Complied	Fail	The water supply uses groundwater and is chlorinated. Owaka met the bacterial and chemical Standards but failed the protozoal Standards for the whole supply.
Richardson Rural – CDC	1003	Fail	Fail	The water supply uses surface water and is chlorinated. A temporary boil-water notice was issued during the period. Richardson Rural did not take appropriate action to protect public health after an issue was discovered, and therefore failed to comply with the Health Act (section 69ZF). Because of this, Richardson Rural failed the bacterial Standards for 312 people; it also failed the protozoal Standards but met the chemical Standards for the whole supply.
Stirling – CDC	737	Complied	Fail	The water supply uses surface water and is chlorinated. Stirling met the bacterial and chemical Standards but failed the protozoal Standards for the whole supply.
Tapanui – CDC	726	Complied	Fail	The water supply uses surface water and is chlorinated and fluoridated. Tapanui met the bacterial Standards but failed the protozoal Standards for the whole supply. Tapanui had fluoride that exceeded maximum acceptable values, and therefore failed to meet the chemical Standards for the whole supply.
Tuapeka West - CDC	283	Fail	Fail	The water supply uses surface water and is chlorinated. Tuapeka West did not take enough *E. coli* samples at frequent enough intervals and did not take appropriate action to protect public health after an issue was discovered, and therefore failed to comply with the Health Act (sections 69Y and

Attachment 1 : Registered Network Supplies Across Otago:
Source: Appendix 1 to the Ministry of Health Annual Report into Drinking Water Supplies; June 2019

Scheme Name - TA Location	Population Served	Health Act	Drinking Water Standard	Comment
				69ZF). Because of this, and the presence of *E. coli* that exceeded maximum acceptable values, Tuapeka West failed the bacterial Standards; it also failed the protozoal Standards but met the chemical Standards for the whole supply.
Waitahuna Rural – CDC	922	Fail	Fail	The water supply uses surface water and is chlorinated. Waitahuna Rural did not take enough *E. coli* samples at frequent enough intervals and did not take appropriate action to protect public health after an issue was discovered, and therefore failed to comply with the Health Act (sections 69Y and 69ZF). Because of this, and the presence of *E. coli* that exceeded maximum acceptable values, Waitahuna Rural failed the bacterial Standards; it also failed the protozoal Standards but met the chemical Standards for the whole supply.
Dunedin City – DCC	112,515	Complied	Fail	The water supply uses surface water and is chlorinated and fluoridated. Dunedin City had *E. coli* that exceeded maximum acceptable values, and therefore failed the bacterial Standards for 300 people. Dunedin City met the protozoal and chemical Standards.
Outram – DCC	750	Complied	Met Standards	The water supply uses groundwater and is chlorinated and treated by UV.
Waikouaiti – DCC	1642	Complied	Met Standards	The water supply uses surface water and is chlorinated.
West Taieri – DCC	450	Complied	Met Standards	The water supply uses surface water and is chlorinated.
Earnscleugh Domestic Water Company Ltd	120	Fail	Fail	The water supply uses groundwater, without disinfection. Earnscleugh Water Scheme did not take enough *E. coli* samples and failed other monitoring requirements, and therefore failed to comply with the Health Act (section 69Y). Because of this, Earnscleugh Water Scheme failed the bacterial Standards; it also failed the protozoal Standards but met the chemical Standards for the whole supply.
Last Chance Community Scheme	120	Complied	Met Standards	The water supply uses secure groundwater, without disinfection.
Long Gully Rural Water Scheme	172	Fail	Fail	The water supply uses groundwater, without disinfection. Alexandra, Long Gully did not take any *E. coli* samples, and therefore failed to comply with the Health Act (section 69Y). Because of this, Alexandra, Long Gully failed the bacterial Standards; it also failed the protozoal Standards but met the chemical Standards for the whole supply.
Maheno Water Committee	152	Complied	Met Standards	The water supply uses groundwater and is chlorinated and treated by UV. A temporary boil-water notice was issued during the period. *E. coli* was detected in 1 of 4 monitoring samples (this is allowable).
Millers Flat Water Company Limited	180	Complied	Met Standards	The water supply uses groundwater and is treated by UV.
Pisa Moorings Utilities Society	130	Fail	Fail	The water supply uses groundwater, without disinfection. Pisa Moorings did not take enough *E. coli* samples at frequent enough intervals, and therefore failed to comply with the Health Act (section 69Y). Because of this, Pisa Moorings failed the bacterial Standards; it also failed the protozoal Standards but met the chemical Standards for the whole supply.
Awamoko – WDC	399	Fail	Fail	The water supply uses surface water and is chlorinated. Awamoko failed its monitoring requirements and did not take appropriate action to protect public health after an issue was discovered, and therefore failed to comply with the Health Act (sections 69Y and 69ZF). Because of this, Awamoko failed the bacterial Standards; it also failed the protozoal Standards but met the chemical Standards for the whole supply.
Hampden/Moeraki – WDC	501	Fail	Fail	The water supply uses surface water and is chlorinated. A temporary boil-water notice was issued during the period. Hampden/Moeraki failed its monitoring requirements, and therefore failed to comply with the Health Act (section 69Y). Because of this, Hampden/Moeraki failed the bacterial Standards; it also failed the protozoal Standards but met the chemical Standards for the whole supply.
Herbert – WDC	670	Fail	Fail	The water supply uses surface water and is chlorinated. A temporary boil-water notice was issued during the period.

Attachment 1 : Registered Network Supplies Across Otago:
Source: Appendix 1 to the Ministry of Health Annual Report into Drinking Water Supplies; June 2019

Scheme Name - TA Location	Population Served	Health Act	Drinking Water Standard	Comment
				Herbert failed its monitoring requirements, and therefore failed to comply with the Health Act (section 69Y). Because of this, and the presence of *E. coli* that exceeded maximum acceptable values, Herbert failed the bacterial Standards; it also failed the protozoal Standards but met the chemical Standards for the whole supply.
Kauru Hill -WDC	197	Fail	Fail	The water supply uses surface water and is chlorinated. Kauru Hill failed its monitoring requirements, and therefore failed to comply with the Health Act (section 69Y). Because of this, Kauru Hill failed the bacterial Standards; it also failed the protozoal Standards but met the chemical Standards for the whole supply.
Lower Waitaki, Rural - WDC	778	Fail	Fail	The water supply uses groundwater and is chlorinated and treated by UV. A temporary boil-water notice was issued during the period. Lower Waitaki, Rural did not take enough *E. coli* samples at frequent enough intervals, and therefore failed to comply with the Health Act (section 69Y). Because of this, Lower Waitaki, Rural failed the bacterial Standards; it also failed the protozoal Standards for the whole supply. Lower Waitaki, Rural did not monitor nitrate, and therefore failed the chemical Standards for the whole supply.
Oamaru - WDC	14390	Fail	Fail	The water supply uses surface water and is chlorinated and treated with ozone. Oamaru did not take enough *E. coli* samples at frequent enough intervals, and therefore failed to comply with the Health Act (section 69Y). Because of this, Oamaru failed the bacterial Standards for the whole supply. Oamaru met the protozoal and chemical Standards.
Tokarahi/Livingstone – WDC	573	Fail	Fail	The water supply uses surface water and is chlorinated. Tokarahi/Livingstone did not have a water safety plan and did not take enough *E. coli* samples and failed other monitoring requirements, and therefore failed to comply with the Health Act (sections 69Z and 69Y). Because of this, Tokarahi/Livingstone failed the bacterial Standards; it also failed the protozoal Standards but met the chemical Standards for the whole supply.
Waihemo – WDC	1357	Fail	Fail	The water supply uses groundwater and is chlorinated and treated by UV. A temporary boil-water notice was issued during the period. Waihemo did not take enough *E. coli* samples at frequent enough intervals, and therefore failed to comply with the Health Act (section 69Y). Because of this, Waihemo failed the bacterial Standards for 1,128 people. Waihemo met the protozoal and chemical Standards.
Windsor - WDC	137	Fail	Fail	The water supply uses surface water and is chlorinated. Windsor did not take enough *E. coli* samples and failed other monitoring requirement and did not take appropriate action to protect public health after an issue was discovered, and therefore failed to comply with the Health Act (sections 69Y and 69ZF). Because of this, and the presence of *E. coli* that exceeded maximum acceptable values, Windsor failed the bacterial Standards; it also failed the protozoal Standards but met the chemical Standards for the whole supply.
Arrowtown – QLDC	4366	Complied	Fail	The water supply uses groundwater and is chlorinated and treated by UV. Arrowtown met the bacterial and chemical Standards but failed the protozoal Standards for the whole supply.
Arthurs Point – QLDC	1631	Complied	Fail	The water supply uses groundwater and is chlorinated and treated by UV. Arthurs Point met the bacterial and chemical Standards but failed the protozoal Standards for the whole supply.
Glenorchy – QLDC	1232	Complied	Fail	The water supply uses groundwater, without disinfection. A temporary boil-water notice was issued during the period. *E. coli* was detected in 1 of 215 monitoring samples (this is allowable). Glenorchy met the bacterial and chemical Standards but failed the protozoal Standards for the whole supply.
Hawea – QLDC	3767	Complied	Fail	The water supply uses surface water and is chlorinated and treated by UV. Hawea met the bacterial and chemical Standards but failed the protozoal Standards for the whole supply.
Lake Hayes – QLDC	3743	Complied	Fail	The water supply uses groundwater and is chlorinated and treated by UV. A temporary boil-water notice was issued during the period.

Attachment 1 : Registered Network Supplies Across Otago:
Source: Appendix 1 to the Ministry of Health Annual Report into Drinking Water Supplies; June 2019

Scheme Name - TA Location	Population Served	Health Act	Drinking Water Standard	Comment
				Lake Hayes had *E. Coli* that exceeded maximum acceptable values, and therefore failed the bacterial Standards for 1,697 people. Lake Hayes met the protozoal and chemical Standards.
Luggate – QLDC	855	Complied	Fail	The water supply uses groundwater, without disinfection. Luggate met the bacterial and chemical Standards but failed the protozoal Standards for the whole supply.
Queenstown – QLDC	25271	Complied	Fail	The water supply uses surface water. It is chlorinated and parts of the supply are treated by UV. Queenstown met the bacterial and chemical Standards but failed the protozoal Standards for the whole supply.
Wanaka – QLDC	13633	Complied	Fail	The water supply uses surface water and is chlorinated. Wanaka met the bacterial and chemical Standards but failed the protozoal Standards for the whole supply.
Wanaka Airport – QLDC	150	Complied	Fail	The water supply uses groundwater and is chlorinated. Wanaka Airport met the bacterial and chemical Standards but failed the protozoal Standards for the whole supply.
Jacks Point	669	Complied	Met Standards	The water supply uses surface water and is chlorinated and treated by UV.

7.2. Three Waters Delivery Reforms

Prepared for:	Council
Report No.	P&S1879
Activity:	Environmental: Water
Author:	Kyle Balderston, Team Leader Urban Growth and Development; Marianna Brook, Senior Advisor Mayoral Forum
Endorsed by:	Gwyneth Elsum, General Manager Strategy, Policy and Science
Date:	25 November 2020

PURPOSE

[1] To provide an update on Otago and Southland's collaborative response to the service delivery components of the Three Waters Reform Programme.

RECOMMENDATION

That the Council:

1) ***Receives*** *this report.*

2) ***Notes*** *that Otago and Southland local authorities continue to work together to support both regions' interests in the Three Waters Reform Programme.*

BACKGROUND

[2] This paper has been provided to councillors at Otago Regional Council and Environment Southland. Councillors for districts/cities received similar information through the process of applying for three waters stimulus funding.

[3] As outlined in the accompanying paper on the Water Service Bill, Central Government is progressing a programme of reforms to the regulation and delivery of three waters services. This work includes:

a. a new regulator (Taumata Arowai, now established),
b. new regulations (Water Services Bill, companion paper) and;
c. structural reform of the service delivery system (this paper).

[4] Information provided by the Department of Internal Affairs (DIA) at nationwide workshops in July and August 2020 confirmed that the structural reforms are tracking towards multi-regional water service delivery entities.

[5] While the reform programme is an initiative of Central Government, there are clear incentives for local authorities to conduct their own investigations into the issues raised. Water services vary significantly by region. Key parameters include area and distances between population centres, geographic features, existing asset condition, contractual arrangements, volumetric charging or its absence, and councils' debt positions.

[6] This paper provides an update on Otago and Southland's collaborative response to the service delivery components of the Three Waters Reform Programme.

PROPOSED VOLUNTARY INVESTIGATION

[7] Like many in the local government sector, senior council officials in Otago and Southland have had various discussions with DIA and others about three waters reform and related issues since 2016.

[8] In November 2019, DIA senior officials visited Dunedin to discuss these issues with the Otago Chief Executives Forum and Otago Mayoral Forum. At the invitation of their Chief Executives, Infrastructure General/Executive Managers from Otago local authorities convened a series of workshops to take a first look at the current state of water services in Otago region and what collaboration could look like. At this point Southland local authorities were invited to join the discussion.

[9] In March 2020, Chief Executives from Otago and Southland councils applied for Crown funding to investigate the current state of water services in Otago and Southland and whether a collaborative approach to water services delivery could benefit Otago and Southland communities and the environment.

[10] This application was successful, leading to a total budget of $375,000 for investigative work, of which half would come from central government and half from the ten local authorities. However, before this work could progress, relevant staff were diverted by urgent Covid-19-related work, and the investigation did not commence.

STIMULUS FUNDING

[11] In July 2020, the Government announced a $761 million funding package to provide post-COVID-19 economic stimulus and maintain and improve three waters infrastructure. This was, in part, a response to the significant number of three waters-related 'shovel-ready' infrastructure projects identified by councils across New Zealand.

[12] Initial funding from the stimulus package was made available to those councils that agreed to participate in the first stage of the reform programme, through a Memorandum of Understanding (MoU). The MoU was eventually signed by all councils in New Zealand, and commits each of them to:

a. Engage in the first phase of the reform programme,
b. Work with neighbouring councils to consider the creation of large-scale entities,
c. Support shared principles and objectives of working together with central government, and
d. Openly share information and analysis undertaken on the state of the three waters asset base and delivery system.

[13] A joint central/local government Three Waters Steering Committee has been established to provide oversight and guidance to support progress towards reform, and to assist in engaging with local government, iwi/Māori, and other water sector stakeholders on

options and proposals. ORC Chief Executive Sarah Gardner is a member of this committee.

[14] Otago and Southland councils together received $63.5 million of the first tranche of Covid-19 stimulus funding: $41.2 million for Otago and $22.3 million for Southland. In August 2020, Otago and Southland Mayoral Forums proposed additional funding from both regions' stimulus allocations be pooled to increase the regional collaboration budget from $375,000 to $2.0 million. This amount is reflected across TAs' Delivery Plans (Delivery Plans are the list of projects each TA was required to submit to DIA as a condition of the funding).

REGIONAL COLLABORATION (REVISITED)

[15] Building on the previous work towards a voluntary investigation and to support collective participation by councils in the Three Waters Reform Programme, the Otago and Southland Mayoral Forums, with their respective local authorities, are developing a 'Three Waters Office' and associated governance arrangements.

[16] The Three Waters Office will be tasked with obtaining information and advice to inform Otago and Southland Councils of the reforms' impact, and, where possible, influence the reforms' outcomes for the benefit of residents of the lower South Island.

[17] In September 2020, Otago and Southland Chief Executives appointed Matt Russell, currently Group Manager Services and Assets at Southland District Council, as interim Programme Director for the Three Waters Office. This appointment is intended to create momentum while longer-term collaboration arrangements in Otago and Southland are worked through.

[18] In addition to the interim leadership position, a joint paper to the Otago and Southland Mayoral Forums included "no regrets" priorities to kick off the collaborative work programme. These priorities examine the current state of water infrastructure and service delivery in the two regions. They are consistent with the scope of the Three Waters Collaboration Investigation agreed earlier in 2020, and also align with the content of a Request for Information (RFI) that DIA released in mid-October.

[19] With Mr Russell now in his new role, the next stage is to develop a detailed budget and work programme for the collaboration, while also finalising appropriate governance arrangements. All Otago and Southland councils will be kept informed as this work takes place.

ROLE OF REGIONAL COUNCILS

[20] ORC is primarily an observer in the collaborative work, especially with the current focus on documenting existing infrastructure and service provision. However, territorial authorities (TAs) acknowledge that there is benefit in regional councils staying connected to the work programme.

[21] Stormwater is one area where both regional councils and TAs could benefit from a shared approach, and regional councils are responsible for maintaining source body quality for drinking water takes and regulation of discharges from wastewater

treatments plans. Regional councils also bring a broader, regional perspective to the discussion.

CONSIDERATIONS

Policy Considerations

[22] This paper has no policy considerations.

Financial Considerations

[23] This paper has no financial implications.

Significance and Engagement

[24] This paper does not trigger the Policy on Significance and Engagement.

Legislative Considerations

[25] There are no legislative considerations.

Risk Considerations

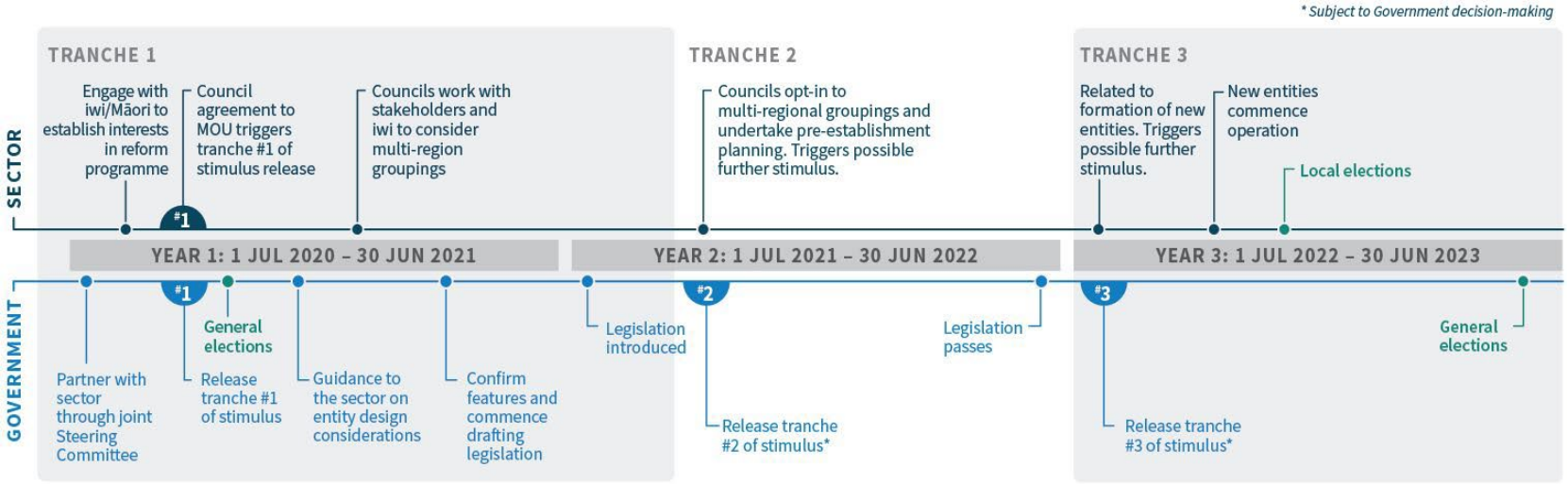
[26] There are no identified risks associated with this paper.

NEXT STEPS

[27] The Government has signalled two further tranches of stimulus funding as part of the reform programme, each with accompanying conditions and milestones. On current timeframes, the new entities could be in place prior to local body elections in late 2022. The timeline in Figure 1 was released by DIA in July and is the most recent available.

[28] The work programme for the Three Waters Office will be responsive to changes in the overall reforms as they progress.

Figure 1: Three Waters Reform Programme Indicative Timeline (July 2020)



ATTACHMENTS

Nil

7.3. Water Services Bill Submission

Prepared for:	Council
Report No.	P&S1873
Activity:	Environmental - Regional Plan: Water Quality
Author:	Kyle Balderston, Team Leader Urban Growth and Development
Endorsed by:	Gwyneth Elsum, General Manager Strategy, Policy and Science
Date:	25 November 2020

PURPOSE

[1] To advise the Council on the general intent and content of the Water Services Bill, and its potential implications for ORC specifically, and the region more generally and to seek approval via delegated authority to prepare a written submission to the appropriate select committee, on the Water Services Bill.

EXECUTIVE SUMMARY

[2] This paper is part of a series alongside two other papers related to Drinking Water issues in Otago that will also inform Council on:

a. Otago Regional Council's (ORC) current responsibilities in relation to Drinking Water.
b. the concurrent Three Waters Service Delivery reforms intended to better facilitate safer, more equitable and efficient three waters delivery across New Zealand.

[3] The Water Services Bill's (the Bill) implications for Drinking Water Suppliers (where much of the Bill's attention is focussed) and for Territorial Authorities (who have new and expanded duties under the Local Government Act 2002 (LGA 2002) to their communities in relation to drinking water and drinking water suppliers) are considerable.

[4] Over the past three years (since the Havelock North contamination event and report) central and local government have been considering solutions to challenges facing the regulation and delivery of three waters services, and are now progressing a programme including:

a. a new regulator (Taumata Arowai, now established),
b. new regulations (Water Services Bill, this paper) and,
c. structural reform of the service delivery system (separate paper).

[5] The Bill provides a framework for the regulations that Taumata Arowai will be enforcing, and the definitions and standards that apply mainly to human drinking water and drinking water suppliers. It largely replaces the existing Health Act 1956 based

approach, which is supplemented by a range of regulations and standards from the RMA, LGA and other legislation. The Health Act approach is a relatively weak, yet overly complex regulatory system identified as contributing to the Havelock North contamination event, alongside regulator and supplier failings at all levels.

[6] The Bill allows for development of regulations and a requirement for Taumata Arowai to undertake certain actions relating to wastewater and stormwater in the interests of integrated management of urban three waters systems. The key focus and priority of Taumata Arowai's purpose, the Water Services Bill, and the government's reforms is on improving the safety and affordability of the drinking water system. Wastewater and stormwater specific reforms and regulations and performance standards are also expected to occur.

[7] ORC's current responsibilities in respect to drinking water are highlighted, and as a result of the Bill they will be effectively increased in intensity and frequency, especially with respect to monitoring, science and reporting. ORC's current and future role is focussed on environmental regulation and the maintenance of source water quality, with a limited role once water is taken.

[8] A range of potential issues with aspects of the Bill are identified, including some foreshadowed in the earlier Taumata Arowai - Water Services Regulator Bill submission. As ORC is not a drinking water supplier, nor a TA (with particular LGA requirements with respect to three waters services), much of the direct impact of the changes to drinking water on day-to-day operations will be minor.

[9] Staff recommend that ORC make a submission in general support of the Water Services Bill, addressing the key points outlined in the Options Section of this paper.

[10] Due to timing of the Bill's entry into Parliament, it has not yet had a first reading. At the time of writing, there are no Select Committees to call for or hear submissions. Accordingly, there is no submission deadline at the time of writing, however it is expected that the new Parliament will progress the Bill for a first reading relatively early in its term. Staff recommend that delegated authority is provided to the Chair and/or CEO to make an ORC submission, considering Council's feedback on the issues noted, once the appropriate Select Committee is re-established and calls for submissions.

RECOMMENDATION

That the Council:

1) ***Receives*** *this report.*

2) ***Approves*** *the Chair and/or CEO to sign a submission on behalf of the Council on the Water Services Bill in line with the points raised in this paper as amended by feedback received.*

BACKGROUND

Three Waters Review

[11] Beginning in mid-2017, the Three Waters Review ran in parallel to the latter stages of the Inquiry into Havelock North Drinking Water, which was set up following the campylobacter outbreak in 2016. As result of the Inquiries initial findings, focussing on what happened and why, Central Government began to work on a programme to address these issues. It seeks to improve the regulation of drinking water, which was also informed by the second stage of the Inquiry whose task was to identify ways to avoid such events from happening again, that was occurring in parallel. The Three Waters Review is a cross-government initiative led by the Minister of Local Government, involving many other agencies, as well as local government, who own and/or operate, with varying degrees of oversight, most three waters services.

[12] The initial findings of the Review were consistent with many of the Havelock North Inquiry's findings and raised broader questions about the effectiveness of the regulatory regime for the three waters, and the capability and sustainability of water service providers. There are 2 key strands of reform flowing from of the review:

a. **Regulatory** reforms, including:
   i. Establishment of a new Water Services Regulator (Taumata Arowai);
   ii. new Water Services Regulations (including the Water Services Bill, and related/consequential RMA/NES changes).

b. **Structural reforms** of the Three Waters Service delivery system, including:
   i. a $761M funding package to provide immediate post-COVID-19 stimulus, maintain and improve three waters infrastructure, and support reform of local government water services delivery arrangements.

Taumata Arowai - the new Water Services Regulator

[13] To date, the Three Waters Review has seen legislation passed into law to create Taumata Arowai, the new water services regulator. Taumata Arowai - the Water Services Regulator Act 2020 sets out Taumata Arowai's objectives, general functions, and operating principles, and establishes Taumata Arowai as a Crown agent.

[14] ORC submitted on the (then) Taumata Arowai Bill in February 2020[1], focusing on broadening the purpose, objectives and principles of Taumata Arowai, giving the ability to regulate based on the *function and performance* of all three waters infrastructure, regardless of scale, location or ownership (rather than be restricted to regulating only council owned, urban infrastructure serving more than one dwelling) while anticipating the detailed regulations they will enforce would be contained in future bespoke legislation.

[1] Committee Paper: https://www.orc.govt.nz/media/8242/council-agenda-20200226.pdf

[15] Most of the submission points made in ORC's submission on the Taumata Arowai Bill were not taken up (only very minor and technical changes to the Bill were recommended by the Select Committee[2] and adopted into the final version of the Act), and these earlier submission points are considered to remain valid and a sound basis for framing a submission on the Water Services Bill.

[16] ORC's submission on Taumata Arowai - The Water Services Regulator Bill largely related to the missed opportunity to improve outcomes for *all* drinking water consumers and the environment. We proposed that Taumata Arowai be legislatively enabled to consider small scale and single-site water supplies, onsite wastewater and stormwater disposal, including operations that are not council owned or operated. This was more than the quite narrow and exclusionary definitions carried over to the Water Services Bill. While it is appropriate that there is a priority and focus on the current means by which the majority of three waters needs are serviced, it does not follow that the regulator should be specifically precluded from assisting the significant minority. These include domestic self-suppliers of water and onsite-wastewater and waste or stormwater infrastructure of any scale that is not council or specified other public body operated.

[17] These small services can have significant individual or cumulative impacts and small operators (households being the smallest and least capable) are also most likely to benefit from clearer regulation and the assistance, advice and other support that would flow from that. In the Otago Region, ORC's compliance monitoring estimates approximately 20% of households are not connected to a reticulated wastewater system. Nationally approximately 87% of households are serviced by registered drinking water suppliers (13% are likely to be domestic self-suppliers). While there is no similar estimate for Otago households, the proportion who are self-servicing is estimated to be somewhere between 20% and 13%[3]. This is a significant proportion of Otago's population, who are also are more likely to be rural, isolated or low income.

[18] Due to the climatic and geological conditions of Otago, most self-supplier sources are from ground or surface water bodies rather than roof/rain fed tanks as is more common in other regions. This makes these households more dependent on the quality of these water bodies and therefore more vulnerable to surrounding and upstream land use impacts, and water takes, including the performance or concentration of onsite wastewater systems.

Water Services Bill

[2] Health Select Committee Report on Taumata Arowai - the Water Services Regulator Bill https://www.parliament.nz/en/pb/sc/reports/document/SCR_99147/taumata-arowai-the-water-services-regulator-bill

[3] Likely to be less than the 20% who self-service for wastewater (as water supplies are easier to extend than wastewater, and irrigation networks are extensive), and possibly higher than the national average of 13%

[19] On 28 July 2020, the Government introduced the companion (to the Taumata Arowai Act) Water Services Bill. This Bill contains the regulations that the new regulator will be implementing. This Bill is an omnibus Bill that will repeal Part 2A of the Health Act 1956 and replace it with a stand-alone Act to regulate drinking water. This Bill is primarily about the powers and duties that Taumata Arowai has as a regulator (and the duties and responsibilities of drinking water suppliers and associated parties including local authorities and regional councils) and not directly about the parallel structural delivery system reform discussions underway.

[20] The Bill also proposes consequential amendments to the Local Government Act 2002 and amendments to other Acts, including a discrete amendment to the Resource Management Act 1991[4]. The Bill provides a framework for the details of the new drinking water regulatory system and provisions for protection of sources of drinking water, with a lesser, complementary role for wastewater and stormwater. Many details of standards and requirements will be developed either as regulations under the Act or as Strategies by Taumata Arowai.

[21] Parliament did not give a first reading to the Water Services Bill before it rose for the election[5]. It is expected that the Water Services Bill will be read early in the new parliament's term as Taumata Arowai is already established and the parallel reforms are progressing.

[22] A detailed examination of ORC's current and future responsibilities is outlined in the following sections. In summary, the Water Services Bill strengthens and expands on ORC's existing responsibilities to actively monitor water quality for human drinking, take direct actions where required, and to ensure plan making and consenting activities result in water quality being maintained. A requirement for Annual and Triannual reporting is also imposed, and data supply and sharing requirements are also increased. Staff are working on better understanding gaps in our current work programmes and monitoring networks with an intention to incorporate the appropriate funding and investment in to upcoming LTP programme, including establishment of a DWS liaison role.

[23] In addition to these specific responsibilities, the obligations on Drinking water suppliers to monitor source and delivery quality are high and are much more extensive, including regular reporting to Taumata Arowai, and the potential penalties for non-compliance are high and extend to individuals (backed up with a professional competence regime).

[24] For Territorial Authorities, the Bill imposes a requirement to ensure quality and quantity of water supplies to communities in its district, and to take over the operation of

[4] http://www.legislation.govt.nz/bill/government/2020/0314/latest/whole.html#whole

[5] The information in this paragraph is based on information updates provided by the Chief Advisor, NZ Society of Local Government Managers

Drinking Water Schemes (DWS) where the continuity or quality or quantity of supply is at risk (including financial risk). TAs must make provision in their LTPs for securing sources of supply. The potential for operators to be non-compliant is relatively high and increased as a result of the Bill, but this risk should be considered against the benefits to communities from longer term certainty about a sustainable supply of safe water.

[25] Concerns are also noted with some definitions, including a focus on council-owned or operated infrastructure (excluding infrastructure owned by others) and a legislative exclusion of the ability to consider single-site operators. The requirement to always ensure sufficient quantity is provided may conflict with the source's environmental ability to provide (exceeding minimum flows or aquifer drawdown requirements), particularly as the proportion of the water taken by DWSs and supplied to metropolitan or other areas actually used for *drinking*, is very small relative to the total take. This includes where drinking water use is secondary to the primary purpose of the take (for example irrigation schemes that also used as a source for drinking water).

[26] The Bill also appears to make it more difficult to implement water efficiency and savings either in the longer term (to improve water quality and quantity in the environment and in the source) or in the short term (such as in times of drought or low flow). It has a focus on always providing what consumers want, rather than recognising that water is itself a scarce and precious resource.

[27] This is highlighted by the difference between the articulation of Te Mana o te Wai in the NPSFM. It gives priority for the environment's needs first, then people, then other extractive uses. The approach under the Water Services Bill which would require Drinking Water Suppliers to prioritise continuity of Supply over all other considerations (including conditions of consent), under pain of significant personal and corporate liability reflects a different prioritisation.

[28] Further detail on the content of the Bill is outlined in Attachment 1 and suggested submission points are outlined in the following sections.

Summary of the Water Services Bill

Potential implications for ORC.

[29] The impacts on Regional Councils are relatively minor relative to the impacts on TAs and drinking water suppliers, as the current role of regional councils is largely maintained, albeit strengthened. This role remains focussed on source quality maintenance and improvement, and monitoring responsibilities, alongside a more general duty to inform others and act on information that has implications for drinking water quality.

[30] Specific responsibilities for regional councils under the Bill are concentrated under *Subpart 5: Source Water* and are largely consistent with existing practices. Three yearly

effectiveness reporting imposes the greatest change from a resourcing requirement, not just in the reporting itself, but by the required analysis and monitoring needed to identify and understand the sometimes weak or lagged relationship between changes in water takes and land use activities and consequential, correlated or causative changes in water quality indicators.

a. Clause 41 - source risk management framework is intended to work together with measures under the RMA and the NPSFM so that risk and hazards to drinking water supplies are identified managed and monitored, and information about these risks and measures is published regularly by regional councils.
b. Clause 42 - Regional Councils must contribute to the development of drinking water risk management plans, by identifying risks or hazards that could affect the quantity or quality of the source, including undertaking actions to address any risks (as agreed, or otherwise required by legislation) on behalf of a drinking water supplier.
c. Clause 43: Receive monitoring results annually from Taumata Arowai as provided by drinking water suppliers to Taumata Arowai in accordance with the drinking water safety plan (assumed this is for the purpose to incorporate into other annual monitoring and public reporting as well as supplement the regional council's own less regular and direct access to DWS monitoring data, including standardising data formats).
d. Clause 44: information about inaccuracies or hazards and risks to drinking water supplies or infrastructure flows between Taumata Arowai, local authorities and drinking water suppliers - *this is to facilitate a bidirectional flow of information.*
e. Clause 45(1) - Regional Councils to publish and provide to Taumata Arowai with information on source water quality and quantity in their regional annually, including any changes to source water quality and quantity.
f. Clause 45(2) - Regional Councils must assess the effectiveness of regulatory and non-regulatory interventions relating to source water, every three years (this is in addition to the current RMA requirement to monitor and assess the efficiency and effectiveness of all plans and provisions every 5 years (RMA s35) and undertake reviews of any unamended provisions of any policy statements and plans at least every 10 years (RMA s79)).

[31] More general responsibilities for regional councils under the Bill include:

a. stronger requirements to monitor water bodies where they are sources for human drinking water (and use appropriate indicators) (*Note that almost all major and many minor waterbodies in the region are sources - this may have implications for Councils monitoring programmes which currently focus on environmental indicators, so linking into DWS monitoring may provide a co-benefit, including increase in spatial and temporal resolution for quantity monitoring and a broadening of quality indicators available*);
b. likely strengthened requirements under amendments to the NES:SHDW around plan making and consenting practices and specific duties to consider the impacts of these on drinking water sources (*this is a strengthening of existing practices,*

implications are that DWS would be expected to be more active in advocating for source water quality in plan making and consenting processes, and maintaining and enhancing quality will be an even higher priority);

c. general increase in the requirement to monitor and make information available and act on it, without delay especially where it pertains to drinking water sources, services and infrastructure *(this is a strengthening of existing practice).*

[32] The most resource intensive component of the proposed changes would be in the proposed 3 yearly Regional Council regulatory and non-regulatory effectiveness review cycle. This is in addition to the existing 5 yearly RMA section 35 efficiency and effectiveness review cycle and the 10 yearly RMA section 79 full review cycle. The impact of this is not so much in the report writing, but in the monitoring, analysis and science resource required to inform this reporting, combined with relatively long lag times between changes to regulation and nonregulatory methods, land use and water quality.

[33] Increased responsibility to monitor water bodies including the use of appropriate indicators is also a potentially significant change. However, increased data flows between Regional Councils and Drinking Water Suppliers could be used to supplement ORC's existing SOE quality monitoring networks, with high frequency testing. However, this will depend on the quality of existing testing which according to the Bill's background material is likely to be significantly variable. That suggests there may be large gaps that regional councils will be expected to fill or at least contribute to. While the indicators measured are not always interchangeable between human drinking water standards and SOE, the additional data that is and will become available for quantity and quality could provide for improved monitoring and analysis. Dealing with the volume of information will also require additional resource including investment in storage and analysis capabilities, which is being addressed at present though the Aquarius project. Data access and formatting will be key to leveraging this opportunity most efficiently.

[34] Changes to ORC's regulatory documents are currently underway, with a focus on improving water quality in line with the NPSFM. The proposed Bill is intended to align to the NPSFM, but there may be timing issues in relation to some of the detail, and the NPSFM's focus on environmental values and the Bill's Drinking Water requirements do not align as well as they could, including with Te Mana o Te Wai. Timing issues may also limit the potential for incorporation of the Bill's requirements into existing processes and existing processes are already stretching policy resources.

DISCUSSION

[35] The impacts on ORC's operations are essentially an increase in the focus and reach of existing programmes and actions to ensure water quality generally and supplied for human consumption is and remains high quality. Changes to regulatory practices could potentially be incorporated into existing or forthcoming regulatory processes, including

the RPS Review and Land and Water Plan. However, the timing of these three waters reforms may preclude direct incorporation into the major RMA processes that are currently underway. Further plan and practice changes are therefore likely to be required.

[36] Changes to the existing National Environmental Standard for Human Drinking Water[6] are also expected, with an "*aim to strengthen the ability of regional councils and territorial authorities to manage risks to drinking water posed by activities in drinking water catchments*" with the more general content of the Water Services Bill providing some insight into what this might look like. The approach to catchment level management suggested would align with the evolving FMU approach currently underway under the NES-FM noting that it lends further weight to objectives that seek to maintain and improve water quality as the priority outcome.

[37] The legislation also appears to make it difficult for water suppliers to improve water use efficiency that would reduce the quantity of water taken from sources, especially as all water must be treated to drinking water standards, when only a very small proportion of it is typically used for this purpose. For example, a DWS reducing quantity supplied to large industrial users in order to maintain a life supporting supply to residential customers in times of low flow, appears to be difficult to implement. An alternative scenario is that takes primarily for irrigation, for example, that are also incidentally used for drinking water could be constrained from meeting quantity restrictions. Both scenarios suggest more clarity is required in the Bill around quantity and its relationship with the quality and sustainability of highly valued source waters.

[38] For the most part, the Water Services Bill maintains regional council responsibilities remain focussed on the protection of source water. It will require an increased focus on water quality, that is largely complementary to the efforts already underway in order to meet the requirements of the NPSFM. Meeting the requirements of the Bill will require working closely with Taumata Arowai, local authorities and drinking water suppliers, and facilitating the two-way flow of pertinent information, as well as making that information public, and reacting to information appropriately when it comes to hand.

[39] Increased responsibilities under the Bill have a particular focus and impetus where water bodies are also registered sources for human drinking water. Given the wide area, long history of human occupation and urban development across Otago, almost all major and many smaller water bodies are sources. So, many of the streams, rivers and lakes in the region (as well as many of the region's aquifers) will be covered by the new regulations.

[40] Information gathered for the Current Responsibilities paper also highlights that a significant proportion of consented water takes by count and volume are wholly or in part for drinking water. Some existing consent holders may therefore find themselves

[6] https://www.mfe.govt.nz/fresh-water/freshwater-acts-and-regulations/national-environmental-standard-sources-of-human

subject to Drinking Water Supplier requirements when only a very small proportion of the take volume is used for this purpose. Recognition of this and assistance for these incidental suppliers and potentially their consumers could be improved.

[41] Issues identified with the Bill largely relate to the potential for conflict between the roles of regional councils to maintain water quality and quantity generally (which is entirely complementary to high drinking water quality) and the stringent duties of water suppliers to always provide sufficient quantity. Potential conflict in the Te Mana o te Wai approach under the NPSFM and the Bill also arises. The Bill does not explicitly identify source water bodies as a scarce resource, but rather one that can be always be extracted from. The duties in the Bill may impact on the ability of drinking water suppliers to reduce the quantity taken or supplied through water efficiency measures, and there is also a lack of differentiation between the volume taken by water suppliers from sources, and the proportion supplied to households, as opposed to other high water use industries.

[42] The Bill also has a focus on larger infrastructure and that owned or operated by local authorities and specified crown bodies. There does not appear to be a reason to preclude the ability of Taumata Arowai to regulate the operation of all three waters infrastructure based on its *function* rather than ownership. Large private wastewater treatment plants (such as institutions and major industrial sites) and associated stormwater infrastructure, or infrastructure developed under a range of new funding and financing tools now in place are therefore potentially outside of the ambit of Taumata Arowai.

[43] The operation of domestic scale infrastructure, including domestic self-suppliers (for water) and onsite wastewater treatment is a known and growing concern. Practical assistance and support backed up with strong enforcement powers as have been invested in Taumata Arowai could provide a significant social and environmental benefit with low cost. Background work to support the Bill's development highlights that the smaller the operator, the more likely the need for improvement. Households are the smallest operators, with the lowest professional capacity.

[44] Specific aspects of the water regulations including updated drinking water standards (covering minimum safety requirements, including fluoridation and chlorination) and aesthetic values (covering smell, taste and appearance), as well as performance requirements for wastewater and stormwater networks will be developed by Taumata Arowai as regulations under the Bill, and are not covered by this paper or the Bill. Opportunities for involvement are anticipated as these processes are commenced by Taumata Arowai in due course.

OPTIONS

[45] ORC may choose to make a submission, or not. In choosing to make a submission, the content of that submission can be in support, or opposition or a mix.

[46] Staff recommend that a submission in general support of the Bill is made, addressing the points outlined in this paper where changes are suggested to:

a. Improve/extend the function and scope of the legislation and Taumata Arowai to encompass
    i. domestic water self-suppliers and onsite wastewater systems, and
    ii. other wastewater and stormwater network infrastructure irrespective of ownership
b. Improve alignment between Te Mana o te Wai under the NPS-FM and the Bill's provisions to recognise the primacy of environmental limits for quantity, by improving the recognition of high-quality source water as a scarce resource that requires management, including quantity limits to protect its quality.
c. Reduce the disparity between the consequences and incentives for water service providers between breaches of environmental conditions (designed to protect the source) and maintaining a constant quantity of supply.
d. Explicitly allow for water suppliers to impose water efficiency measures including enabling or requiring a reduction in the quantity supplied, overall or per connection, or by user type (for example enabling reduction in volume supplied to industry to maintain volumes to households for drinking water) to reduce take volumes, improve efficient use of scarce resources, provide for growth without increasing take, facilitate access or use by other users, and reduce discharges from wastewater networks;
e. Recognise that takes may be wholly or partly for drinking water and that constraints on takes to maintain water quantity and quality may reduce water availability for non-drinking water purposes.
f. Recognise that some consent holders and infrastructure may be used as source water for human drinking water as an incidental use to the main purpose of the take (irrigation networks for example), and that transitional resource may need to be provided for smaller non-TA operators, including to households who currently are served by them.
g. Providing mechanisms to standardise monitoring data formats and facilitate information sharing between drinking water suppliers and regional councils.

[47] Feedback from Council on these points, or the inclusion of any additional issues can be incorporated into a submission to be approved under delegation to the Chair and CEO that will be prepared once Select Committee timeframes are clearer.

CONSIDERATIONS

Policy Considerations

[48] Developing this paper on the Water Services Bill has involved a cross-council working group, with a focus on the implications for ORC's current work programme and responsibilities. These remain largely the same, with a continued focus on source protection, environmental monitoring and information sharing, albeit strengthened. A

focus on maintaining and enhancing water quality is aligned to ORC's existing statutory functions, objectives and stated strategic aims.

Financial Considerations

[49] The Water Services Bill will require ORC to undertake a range of monitoring and reporting functions. While these are generally consistent with ORC's existing functions, the frequency and spatial resolution and specificity of water quality monitoring and the frequency of plan and consenting evaluation reporting in particular are likely to be greater than current. Meeting these proposed new requirements will require an increase in resourcing.

[50] The cross-council working group process used in developing this paper has allowed relevant departments to consider potential implications on current work programmes and to prepare LTP resourcing proposals including financial implications.

Significance and Engagement

[51] Any person may make a submission on the Water Services Bill. Other parties may find the information in this paper useful for developing their submission. Financial implications will increase to align to the increased workload but are not considered to be particularly significant at this stage.

[52] The impact on ORC is relatively minor compared to changes for water services suppliers and Territorial Authorities. Central Government is driving changes to three waters legislative framework and structural reforms, with an aim of improving the environmental performance of three waters services. A key challenge remains the financial affordability of meeting existing and new standards for Water Services, and their customers and communities. A key part of meeting this latter challenge is the related structural reforms, and associated stimulus and investment funding. These structural reforms are likely to be of significant public interest as it will affect water services providers, Territorial Authorities and their communities.

Legislative Considerations

[53] Once the Bill is enacted, ORC must undertake any duties, functions or powers imposed, and comply with any other legislative requirements. Making a submission allows for suggestions for improvement to the proposed Bill before this occurs.

NEXT STEPS

[54] Once Parliament reconvenes post-Elections, the Water Services Bill is expected to be relatively quickly referred to a Select Committee who will seek public submissions.

[55] Based on feedback from this committee, staff will prepare an ORC submission for approval by the Chair and/or CEO to submit to Select Committee in due course.

[56] The Select Committee will consider submissions and make recommendations on the Bill that will be incorporated in the Second Reading. The Third Reading provides opportunities for Debate and Supplementary Order papers, and the Water Services Bill will be enacted once is receives Royal Assent.

[57] Staff anticipate where changes are made by Select Committee and Parliament, they will likely be technical and relatively minor and will not fundamentally alter the underlying intent and purpose of the Bill to dramatically increase the performance of Drinking Water Suppliers, as well as Wastewater and Stormwater services. The new regulator, Taumata Arowai, is already established and this is a critical next step in implementing the regulatory reform recommendations of the Havelock North Water Contamination Enquiry. Accordingly, staff are proposing resources in the LTP to enable ORC's capacity and capability to meet the directions of the Water Services Bill as it is drafted.

ATTACHMENTS

1. Summary of the Water Services Bill [**7.3.1** - 5 pages]

Summary of the Water Services Bill

[1] The Water Services Bill is a key plank of the Governments two-pronged response to the Havelock North Enquiry, that covers regulatory reform (the new regulator, Taumata Arowai is already established) and structural reforms of the service delivery sector.

[2] Key principles from the Havelock North Enquiry and the Governments response embedded in the bill include:

a. All parties involved must embrace a high standard of care in the relation to drinking water;
b. Protection of source water is of paramount importance;
c. Multiple barriers against contamination of drinking water should be maintained;
d. Change precedes contamination and must never be ignored;
e. Suppliers must own the safety of drinking water;
f. A preventative risk management approach must be taken.

[3] The Bill will repeal and pull together many of the disparate parts of the regulatory system from the Health Act 1956 and Local Government and Resource Management Acts and also strengthen them. The establishment of a focused and capable regulator will also contribute to better outcomes. Reforming the three waters delivery sector to provide the scale necessary to increase competence, capacity and affordability of the new regulations and also facilitate a catchup on existing shortfalls in infrastructure.

Section by Section Summary

[4] Duties and obligations of Drinking Water suppliers - Applies to all drinking water suppliers (DW Suppliers) except domestic self suppliers **(DSS)**

a. Provide safe DW, and meet DW Standards,
b. Ensure there is always sufficient quantity of DW to meet the ordinary needs of consumers,
c. Register with Taumata Arowai and maintain records,
d. Have and maintain a DW safetly plan that contains a multi-barrier approach
e. Clear obligations to inform TA, and take action to address any breach of the above duties for any reason, including public health, breaches of DWS or any other risk event
f. Duties also apply to officers agents and employees, who must exercise professional due diligence (similar to Health and Safety at Work Act 2015)

[5] Source Water Risk Management - New arrangements relating to source of DW - the freshwater bodies that water is abstracted from before treatment.

a. Applies to DWS, TA and local authorities including regional councils
b. Based on a preventative risk management approach, alongside information flows between all parties
c. DW Suppliers must
    i. monitor source quality
    ii. have a source risk management plan (SRMP) which identified the risks to sources, and manages, controls or eliminates those risks
d. Local authorities including Regional Councils must
    i. contribute to SRMP by sharing information about risks and
    ii. undertaking action to address them including on behalf of a DW supplier
e. Regional Councils must

i. assess the effectiveness of its regulatory and non-regulatory interventions relating to source water every 3 years

f. New provision in RMA to require consent authorities to have regard to risks including potential risks to source water.

[6] The Bill's approach to regulation is a 'proportionate' approach based on scale, complexity and risk, reflecting the range of situations suppliers and consumers from large capable regional metropolitan suppliers to small marae or rural supplies. This approach applies to both regulation and the responsibilities and reporting load of suppliers. Taumata Arowai also has a toolkit of assistance and enforcement powers that can be applied in a similar manner, including templates and acceptable solutions, and technical advice following a similar approach to the Building Code/Building Act 2004. Penalties available under the act are relatively severe, and extend to agents, employees and managers but include a specific exclusion for persons acting in a governance role as part of a publicly elected body (such as Councillors on a Committee).

[7] Emergencies - The Bill includes powers enabling Taumata Arowai to declare and manage drinking water emergencies such as infrastructure damage, contamination events or droughts, but these powers can only be applied after consulting the responsible Minister.

[8] Te Mana O Te Wai - The Bill requires all persons who perform or exercise functions powers and duties under the Bill to give effect to Te Mana o te Wai. This is intended to parallel the requirements faced by Local authorities under the NPS FM, and on Taumata Arowai under the Water Services Regulator Act 2020. However, there do appear to be some potential conflicts in the relative priority between the environment first, then peoples needs and then other uses as laid out in the NPSFM and the Water Services Bill, which is focussed on ensuring drinking water suppliers meeting people's needs foremost.

[9] As part of its governance arrangements, Taumata Arowai must have a Maori Advisory Group that provides advise on Maori knowledge and interests, including

a. Developing and maintaining a framework that provides advice and guidance on how to interpret and give effect to Te Mana o te Wai;
b. Provide advice on how to enable matauranga Maori, tikanga Maori and kaitiakitanga to be exercised.

[10] Authorisations, occupational regulation and laboratory accreditation - The Bill includes a framework to enable authorisation and occupational regulation of DW suppliers. This in new in legislation and will improve the professional capability of the industry. Powers include:

a. Some organisations will need to be authorised to operate a DW Supply, by meeting competency requirements such as systems, processes and staff professional skill or qualification requirements;
b. All Territorial Authorities and CCOs will need to be authorised or have their Drinking Water Services delivered by an authorised provider within 5 years of commencement of the Bill;
c. Some individuals who operate DW supplies, or who test, assess or certify supplies, or who sample drinking water will be required to meet minimum skills, qualification or experience requirements
d. An accreditation regime for Laboratories that test raw, source and drinking water is also proposed

[11] Reporting, Compliance and Enforcement - Including those adopted from existing provisions in Part 2A of the Health Act 1956, the Bill contains a broad tool kit of powers that allow for a

graduated response to non-compliance. Taumata Arowai must develop and publish and compliance, monitoring and enforcement strategy to provide transparency on how it will apply its powers and allow time for suppliers to reach full compliance. These powers include:

a. Powers for compliance officers to direct suppliers, including compliance orders where non-compliance is persistent or serious;
b. Search and information gathering powers to obtain documents, test water samples, deal with serious risks to public health,
c. the ability to obtain search warrants to investigate non-compliance, as well as entry to premises without search warrants where there is reasonable belief of a serious risk to public health;
d. powers to enter into enforceable undertakings (as an alternative to compliance orders or prosecution);
e. new statutory intervention powers to appoint operators of drinking water services in cases of serious or persistent non-compliance;
f. new infringement notices for minor non-compliance
g. Reformed offenses to better direct behaviours that need to be regulated, including new offences where suppliers expose consumers to serious risk of death, illness or injury though negligent or reckless conduct, including increased penalties to align to comparable regimes;
h. Additional sentencing options for the court, including tailored sentencing criteria and supervisory and training orders.

[12] The Bill contains a consumer complaints framework that is designed to ensure complaints are taken seriously and action taken where necessary. Where a complainant is dissatisfied with a suppliers response, they are able to seek a review by Taumata Arowai. The details of this complaints framework will be set out in regulations.

[13] The Bill contains strict liability offences (criminal offences where there is no requirement to prove intent). This extends to body corporates and unincorporated bodies who are liable for the actions or omissions of officers employees and agents and for the most part relate to failings that result in public health risks, breaches of duties, or failure to comply with Taumata Arowais directions or other requirements.

[14] Of particular note, is that a "failure to comply with the duty to provide sufficient drinking water" is an offence, punishable by a fine of up to $50,000 for an individual and $200,000 for a body corporate. The contrast in the consequences for a drinking water supplier for breaching the environmental limits (e.g. resource consent conditions) of a consented take or source are significant and could produce a perverse incentive. The costs and technical barriers to ORC in bringing prosecutions under the RMA is also much more demanding. However, the penalty for this offence aligns to other 'technical' offences such as failure to notify risks or hazards, or failing to notify updates to the register, supply from unregistered source, or failure to complying with any aspect of the water safety plan; as well as 'dishonesty' offences such as provision of false or misleading information, so is internally consistent.

[15] The offences that impact on human health are very significant - for recklessness in supplying unsafe drinking water are up to 5 years imprisonment, $600k per individual and $3M for body corporates, but negligence in supplying unsafe drinking water or failing to act involve fines of up to $300k and body corporates of $1.5M. These offences attract higher penalties due to the significant implications for public health and the need to provide a strong deterrent.

[16] Exemptions to these criminal liabilities include:

a. Officers employees and agents are personally responsible for failing to meet their due diligence duties, but are not liable for offences relating to drinking water suppliers;
b. Volunteers are not liable for negligence in the supply of safe drinking water, including informing or acting, or failures of due diligence
c. Elected local body office holders and boards of trustees acting in those capacities are not liable for offences under this Bill
d. Defences to liability is available where the commission of the offence was due to the action or omission of another person, accident or other cause outside of the persons control, and the person took all reasonable precautions and exercised due diligence to avoid the commission of the offence.

[17] Wastewater and Stormwater - The bill contains national level reporting, monitoring and advisory functions for wastewater and stormwater, allowing Taumata Arowai to:
a. Compile information about networks in a national, public database (and require the supply of the information necessary to undertake this task from suppliers)
b. Set environmental performance measures, which wastewater and stormwater operators have to report against annually;
c. Publish an annual report on the environmental performance of wastewater and stormwater networks and their compliance with applicable regulatory requirements (such as resource consents);
d. Identify and promote national good practice for the design and management or wastewater and stormwater networks

[18] Relationship to Local Government Act - The Bill alters the existing Local Government Act 2002 regime by imposing a specific duty on TAs to ensure that local communities always continue to have access to drinking water, including supporting this provision by understanding the risks to ongoing access and plan to ensure that services continue to be available. The Bill also places new responsibilities on TAs when supplies (even if not owned or provided by TAs) fail or are at risk of failing.

[19] These provisions recognise and strengthen the existing role that TAs play in 'providing for' drinking water services to their communities, and will be contained in an amendment to the LGA 2002 that will:
a. Require TAs to assess every three years the access that communities have to drinking water services, and consider its implications for local government planning (eg LTP and infrastructure strategy)
b. Require TAs to work with suppliers, consumers and Taumata Arowai to find solutions where drinking water services fail, and ensure that consumers continue to have access to drinking water services, whether provided by the TA or another supplier

[20] Transitional Arrangements - These provide for change periods between existing regimes and the provisions under the new Bill. These include (all timeframes refer to the time from commencement of the Act)
a. All suppliers on the existing drinking water register will be transferred to the new Taumata Arowai register. Suppliers have 12 months to register if they are not currently registered, or to meet the new register requirements.
b. Existing Drinking water safety plans will continue to apply. Larger drinking water suppliers (those serving more than 500 persons for at least 60 days per year) have 12 months to have a plan in place that complies with the new requirements. All other suppliers have 5 years;

c. All TAs will need to become authorised or have their DW services delivered by an authorised supplier within 5 years;
d. Taumata Arowai's compliance and enforcement strategy must be in place within 12 months.

7.4. ECO Fund Applications - October 2020 Funding Round

Prepared for:	Council
Report No.	GOV1954
Activity:	Environmental: Land; Environmental: Water
Author:	Euan Hind, Partnerships Lead - Biodiversity
Endorsed by:	Gavin Palmer, General Manager Operations
Date:	17 November 2020

PURPOSE

[1] This report seeks Council approval to fund the recommended ECO Fund applications for the October 2020 round.

EXECUTIVE SUMMARY

[2] The ECO Fund supports community driven projects that protect, enhance and promote Otago's environment. The Otago Regional Council provides $250,000 to the ECO Fund each year. This is split into two funding rounds of $125,000 each per year, one in March and one in October.

[3] The October 2020 funding round received 30 applications seeking a total of $534,877.30. The ECO Fund Decision Panel met on 4 November 2020 to assess the applications. Following the assessment, the Decision Panel has recommended 10 applications to Council for funding totalling $124,743 (see paragraph 13).

RECOMMENDATION

That the Council:

1) ***Receives*** *this report.*
2) ***Approves*** the funding recommendations of the ECO Fund Decision Panel for the October 2020 round to a total value of $124,743.

BACKGROUND

[4] The ECO (Environment. Community. Otago) Fund supports community driven projects that protect, enhance and promote Otago's environment. The Otago Regional Council (ORC) provides $250,000 to the ECO Fund each year. Since October 2019 this funding has been split into two rounds of $125,000 per year. These rounds are conducted in March and October. There are two categories of application; those under $5,000 and those over $5,000.

[5] The ECO Fund was established in July 2018. To date the Fund has provided support to 55 projects to a total of $504,998 (see paragraph 7). As a point of difference to other community funds, the ECO Funds supports administration costs as well as capital costs. The Terms & Conditions for the ECO Fund are in attachment 1 to this paper.

[6] Applications for this round opened on 1 October and closed on 20 October 2020. A total of 30 applications were received seeking a total of $534,877.30 as detailed below.

October 2020 Fund Round		
Category	**Applications**	**Funds Requested**
Under $5,000	8	$24,983
Over $5,000	22	$509,894.30

Total Funds Requested	**$534,877.30**
Total Funds Available	**$125,000**

[7] There have been 5 previous rounds of the ECO Fund. The results of these rounds are detailed in the table below for comparison. It is noted that the decision to split funding into two rounds per year was approved in August 2019 (Council Paper 2019.08.14). The March 2020 round had an additional $7,573.78 available due to underspend in the October 2019 round. That underspend was due to a lack of applications that met the ECO Fund criteria.

Round	**Applications**	**Total Requested**	**Projects**	**Total Funded**
March 2020	24	$323,312.63	14	$132,574
October 2019	24	$388,264	11	$117,426
May 2019	25	$331,731	11	$73,666
January 2019	24	$386,321	9	$73,666
September 2018	27	$332,824	10	$107,666

[8] Administration of the ECO Fund is a multi-staged process. This process is detailed in Figure 1 below. This paper to Council marks Step 5 in the process.

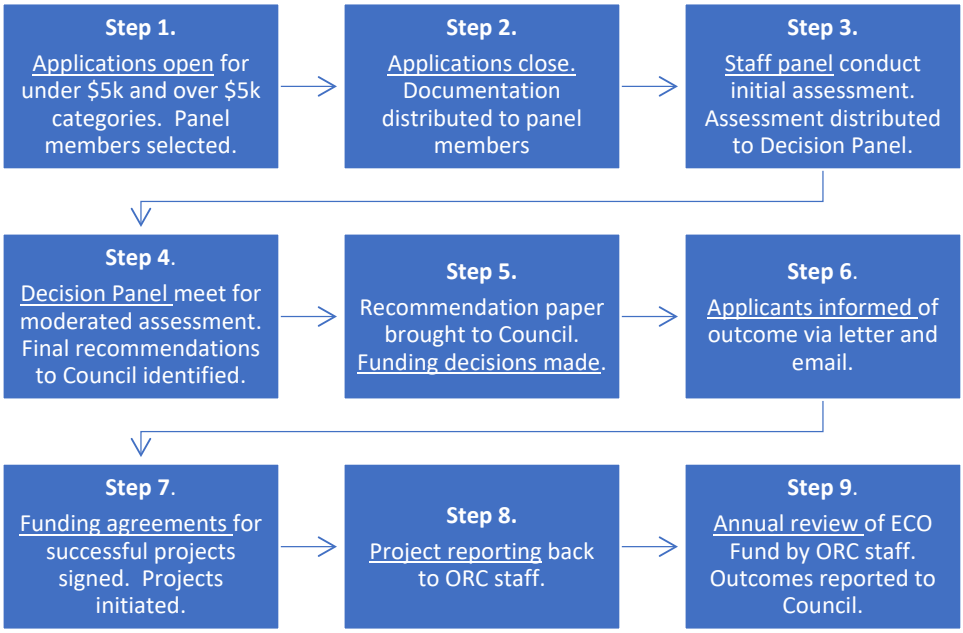


Figure 1: ECO Fund process

DISCUSSION

[9] Applications to the ECO Fund are assessed against the criteria listed in attachment 2 of this paper. Each application is given a score out of 45 in the assessment. The funding recommendation is based on how highly an application scores relative to the other applications assessed in the funding round.

[10] The staff panel met on 28 and 29 October 2020 to conduct an initial assessment of applications. The full ECO Fund Decision Panel, consisting of staff and Council members[1], met 4 November 2020. The Panel moderated assessment scoring and determined final recommendations for funding to be brought to Council for approval.

[11] All applications to the October 2020 round of the ECO Fund have been made available to Councillors prior to this Council meeting. Summaries of each application have been compiled and included as attachment 3 to this paper.

[12] The Decision Panel disqualified 4 of the 30 applications from assessment. This was because the applications did not meet all Terms and Conditions of the ECO Fund (refer to attachment 1), the application presented potential for a perceived conflict of interest, or there was a more appropriate source of funding available.

[13] Following the assessment process, the Decision Panel are recommending 10 projects for funding at a total value of $124,743 for the October 2020 of the ECO Fund. The final recommendations of the Panel to Council are detailed in the tables below.

[1] Crs Deaker, Kelliher and Robertson

Applications under $5,000			
Project name	**Focus**	**Y/N**	**Amount**
Tobin's Face / Sawpit Gully Planting – Arrowtown Choppers	Biodiversity	Yes	$4,995
Otago Boys Sustainability Project – Otago Boys High School	Biodiversity	Yes	$1,000
Equipment for Clean Up – Our Seas Our Future	Coastal	Yes	$1,590
Predator Free Puahuhu – Predator Free Puahuhu	Biosecurity	Yes	$1,500
Poolburn School GROW Space – Poolburn School	Biodiversity	No	
OSRC Catchment Meetings – Otago South River Care	Water quality	No	
Pest Free Pisa Moorings – Pisa District Community Group	Biosecurity	No	
The Woolies – Perkins Networks Ltd	Biosecurity	No	
		Total:	**$9,085**

Applications over $5,000			
Project name	**Focus area**	**Y/N**	**Amount**
Project Salt – Department of Geology, Uni of Otago	Biodiversity	Yes	$26,000
WRT Educate for Nature – Wakatipu Reforestation Trust	Biodiversity	Yes	$28,075
Planting Projects for Biodiversity – Haehaeata Natural Heritage Trust	Biodiversity	Yes	$15,600
Bannockburn Reforestation Project – Mokihi Reforestation Trust	Biodiversity	Yes	$5,324
Orokonui's Neighbours – Otago Polytechnic	Biodiversity	Yes	$19,000
Otokia Creek Marsh Restoration – Otokia Creek and Marsh Habitat Trust	Water quality	Yes	$21,659
2nd Waste Free Wanda Tour – Plastic Free Wanaka	Waste	No	
Wanaka Shoreline Trapping Project – Wanaka Backyard Trapping	Biosecurity	No	
Kye Burn Freshwater Fish Management Plan – Kye Burn Catchment Ltd	Biodiversity	No	
Silverstream Beautification Project – Rotary Club of Mosgiel	Biodiversity	No	
Open Valley Urban Ecosanctuary – The Valley Project	Biodiversity	No	
Tautuku Reforestation Project – Royal Forest & Bird Protection Society	Biodiversity	No	
Otago Peninsula Riparian and Revegetation –	Biodiversity	No	

Otago Peninsula Catchment Group			
Wetherston's Creek Fencing Project – Lawrence Gymkhana Club	Water quality	No	
Feral Cat Trapping – Routeburn Dart Wildlife Trust	Biosecurity	No	
Smiths Creek Catchment Enhancement Project – STOP Inc. Soc.	Water quality	No	
Blue Lake and Walking Track Enhancement – St Bathans Area	Biodiversity	No	
Grand and Otago Skink Collaboration Survey – Lake Hawea Station	Biodiversity	No	
Nicols Creek Track Project – Mountain Biking Otago Inc.	Biodiversity	No	
Fraser River Otewhata Riparian Enhancement – Ahika Consulting Ltd	Biodiversity	No	
Biostream – Biostream	Water quality	No	
Bruce Community Glass Crusher – Project Bruce	Waste	No	
		Total:	**$115,658**

[14] During the assessment of the October 2020 funding round several areas for process improvement were identified. These included opportunities to improve the structure of the application forms, further clarify the ECO Fund Terms and Conditions, and further clarity in the definitions behind the Fund's assessment criteria.

OPTIONS

[15] Two options have been identified to assist Council with their decision making.

- **Option One – approve** the recommendations of the Decision Panel to award funding to the 10 applications as listed in paragraph 13, to a total value of $124,743.
- **Option Two – reject** the recommendations of the Decision Panel and direct the Panel to reassess the applications.

CONSIDERATIONS

Policy Considerations

[16] Nil.

Financial Considerations

[17] The Council has a total of $125,000 budgeted for the October 2020 round of the ECO Fund for the 2020/21 year.

[18] It is noted that ECO Fund applications rounds have been consistently oversubscribed. The October 2020 ECO Fund round is the most oversubscribed to date (see paragraphs 6 and 7).

Significance and Engagement

[19] This paper does not trigger ORC's policy on Significance and Engagement

Legislative Considerations

[20] Nil.

NEXT STEPS

[21] Following a final Council decision on funding, staff will progress the next steps of the ECO Fund process detailed in Figure 1 (paragraph 8). The immediate next steps will be to advise applicants of the outcomes and to draw up funding agreements with successful applicants.

[22] ORC staff to implement a review of ECO Fund process to identify and act on opportunities for improvement. This review and subsequent improvements will be completed prior to the March 2021 ECO Fund round opening.

ATTACHMENTS

1. ECO Fund T& C [**7.4.1** - 1 page]
2. ECO Fund - Assessment Criteria [**7.4.2** - 1 page]
3. ECO Fund - Applications - October 2020 [**7.4.3** - 138 pages]

Does the project meet all terms and conditions?

- ☐ The applicant can only submit one application per funding round
- ☐ The project must have a defined start and finish date. We fund both one off projects and those running over multiple years with a need to report, the re-apply the next financial year
- ☐ Applicants must disclose any other funding they have applied for or received for this project
- ☐ All funding is GST exclusive
- ☐ Successful applicants must agree to Otago Regional Council promoting their project
- ☐ Successful applicants must agree to report on the project outcomes to ORC within a specified timeframe, and account for how funds were spent
- ☐ Successful applicants agree to report on their project at a council meeting, if requested
- ☐ Where applicants seek funding over $50,000, Otago Regional Council will only fund a proportion of the total project (to be determined on a case-by-case basis)
- ☐ If the ECO Fund is over-subscribed in any funding round priority will be given to projects in threatened and vulnerable habitats and ecosystems
- ☐ If successful applicants plan to seek more funding in a future funding round there is no guarantee that any future funding applications will be successful
- ☐ The ECO Fund will not fund retrospective costs
- ☐ If work funded is not completed within the given time frame or funds are not spent as agreed, Otago Regional Council reserves the right to request the return of funds unless otherwise agreed
- ☐ Government organisations and their staff cannot apply to the ECO Fund
- ☐ Decisions made by Otago Regional Council are final and are made at our sole discretion
- ☐ The ECO Fund does not:
    - Fund projects for commercial or private gain
    - Provide funding to individuals
    - Cover maintenance for existing projects unless otherwise agreed
    - Fund retrospective costs
    - Assist in the response to any actual or potential enforcement action
- ☐ If funding is requested for salary costs, only 50% will be funded
- ☐ Funds granted expire 6 months after Council approval. If the applicant fails to uplift funds within the 6 months (unless otherwise agreed) funds will go back into the pool

Please note that if the combined funding from all applicants requested at each funding round exceeds the total funding available, not all projects will be able to receive funding. Decisions made by Otago Regional Council are final and are made at our sole discretion. This does not prevent applicants applying again at the next funding round.

Otago Regional Council may contact you if more information is needed to make a decision.

ecofund

Environment. Community. Otago.
Te Ao Turoa. Hapori. Ōtākou.

Otago Regional Council

ASSESSMENT CRITERIA	ORC STAFF	DECISION PANEL
Does the project occur in Otago?	☐	☐
Does the project involve/engage the community?	☐	☐
To what extent? 0-4 = below average, 5-9 = average, 10-15 = above average 16-20 = outstanding	/20	/20
Does the project do one or more of the following (tick those that apply): ☐ Protect the environment ☐ Enhance the environment ☐ Promote the environment * *e.g. does it create awareness in the community or educate school children?		
How much impact will the project have on protection? 0 = none 1= below average 2 = average 3 = above average 4 = great 5 = outstanding	/5	/5
How much impact will the project have on enhancement? 0 = none 1= below average 2 = average 3 = above average 4 = great 5 = outstanding	/5	/5
How much impact will the project have on promotion? 0 = none 1= below average 2 = average 3 = above average 4 = great 5 = outstanding	/5	/5
Does the project align with ORC work programmes? ** Tick those that apply: ☐ Water quality ☐ Biodiversity Biosecurity ☐ Air quality ☐ Other: ☐ Water quantity ☐ Climate change ☐ Urban development ☐ Coastal/ marine environments _____		
How much impact will the project have on the above work programme(s)? 0-2 = below average, 3-5 = average, 6-7 = above average 8-10 = outstanding	/10	/10
Total:	**/45**	**/45**

*** Projects that align with ORC's current priority areas water, climate change, urban development and biodiversity will be given preferred selection (see our website for more information on what these priorities mean www.orc.govt.nz/plans-policies-reports/corporate-plans-and-reports/annual-plan)*

Tobin's Face / Sawpit Gully Planting – Arrowtown Choppers

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Application for funding under $5,000.00

Please supply any supporting documents as part of your application, e.g. quotes, letters of support, project detail.

Once you have completed this application please email it to ecofund@orc.govt.nz or post to:

ECO Fund
Otago Regional Council
Private Bag 1954
Dunedin 9054

CONTACT DETAILS OF PERSON/ORGANISATION

First name:	Karl
Last name:	Walker
Organisation:	Arrowtown Choppers
Postal Address	
Number/Street name/PO Box:	[redacted]
Suburb:	Arrowtown
City:	
Region:	Queenstown Lakes District
Postcode:	9302
Phone number:	[redacted]
Email address:	[redacted]

PROJECT DETAILS

Please provide a brief 1-2 sentence description of what your project is hoping to achieve and what funds requested are for. This will be used to promote your project on the ORC website and other communications.

Arrowtown Choppers (volunteer group dedicated to the eradication of the wilding pines in Arrowtown) have received funding for 4000 native eco-sourced trees from the 'Trees that Count' fund to be planted on Tobin's Face and Sawpit Gully (within areas where wilding pines have been cleared). To plant these trees in 2021 the Arrowtown Choppers require funding from the 'ecofund' to purchase 4000 plant guards, stakes and fertiliser tablets. This will protect the trees from grazing and the elements in the first 2-3 years which will ensure a high survival rate.

Tobin's Face / Sawpit Gully Planting – Arrowtown Choppers

PROJECT DETAILS CONTINUED

Project name:	Tobin's Face/Sawpit Gully Planting
Location of project:	Tobin's Face/Sawpit Gully (Arrowtown)
Project start date:	Autumn 2021
Project finish* date:	Spring 2021
Who is involved in the project? e.g. other community groups	Arrowtown Choppers, Arrowtown Village Association, APBA, land owner

Is your organisation an unincorporated membership group, an incorporated society, a trust, a charitable trust, or none of these?

unincorporated membership group

Are you GST registered?

no

Please use the space below to describe your project, including:

1. How does the project involve or engage with the community?
2. Does the project protect the environment and what impact will this have?
3. Does the project enhance the environment and what impact will this have?
4. Does the project promote or educate others about the environment and what impact will this have?
5. Does the project align with ORC work programmes and what impact will it have on that work programme? E.g. water, climate change, urban development, biodiversity

Project description:

How does the project involve or engage with the community?

Arrowtown Choppers were formed in 2017 by a group of passionate locals in response to seeing their landscape changing rapidly. They have worked very closely with Arrowtown Wilding Group and have since undertaken a program to clear wilding conifers from the Arrowtown Hills and has significant local support through AVA, APBA and local community. The programme has received adequate funding to deliver Phase 1 of the Arrowtown Wilding Strategy (https://www.arrowtownvillage.nz/environment/wilding-trees/). Phase 1 due to be completed by the end of 2020. With the spread of wildings coming under control, Phase 2 of this program is to implement a revegetation program in these cleared areas and return native biodiversity to Arrowtown. As part of Phase 2 of the Arrowtown Wilding Strategy approximately 100,000 natives need to be replanted. This revegetation phase will take several years; however, we are confident on the delivery with the Tobins Face Trial Planting site (Planted in April 2019) showing positive results (800+ natives).

The planting of these 4000 trees will involve the following volunteer hours:
Autumn & Spring Planting Nights (8 nights for 2 hours): 15 Volunteers
Autumn & Spring Planting Days (2 days for 4 hours each day): 50 Volunteers (including groups such as Arrowtown Preschool, Primary School, Scout Group, etc and all local volunteers will be welcome, previous planting days have seen 60-80 volunteers turn out)

This results in volunteer hours totalling 650 – 750 hours (10mins/plant + organising)

Tobin's Face / Sawpit Gully Planting – Arrowtown Choppers

Does the project protect the environment and what impact will this have?
The guards will protect the 4000 trees (funded through 'Trees that Count') replanted into areas on Tobins Face and in Sawpit Gully that have recently been cleared of wilding conifers. This will focus on replanting along accessible trails in recently cleared stands to assist naturally occurring native regeneration from adjacent stands. These plantings will provide improvements to both local biodiversity and amenity values to public access tracks. This project will use community volunteers to transport, plant and maintain the trees. The volunteer group will also provide weed control following plantings. This will be useful as there will potentially be an explosion of conifer seedlings over the next few years – the site is accessible and relatively small – volunteers will maintain the site to ensure it doesn't become a mix of new wilding conifers and planted beech.

Does the project enhance the environment and what impact will this have?
Extensive wilding control work has been undertaken in the last two years. Areas recently cleared of wilding conifers above Bush Creek (Sawpit Gully) and Tobin's Face have a significant need for improvements in the form of native plantings due to the slow expansion of mountain beech stands and native shrubs. Observation from adjacent beech stands show that the conditions are suitable for native plant regeneration, which can be expediated through planting of eco-sourced seedlings. Once established the trees will provide a renewed native forest corridor from Bush Creek up towards the remnant beech stands and up Tobin's track. When mature they will begin to disperse through seed production. This area is also popular with the local community due to track access and has strong community support for regeneration works.

Does the project promote or educate others about the environment and what impact will this have?
Given the inter-generational timeframes of this problem, we view this project as part of a broader educational programme. The community planting days provide valuable skills and teach the importance of fostering a culture of kaitiakitanga (guardianship). We regularly involve the whole community, including groups such as Arrowtown Preschool, Primary School, Scout Group, etc and all local volunteers will be welcome.

Does the project align with ORC work programmes and what impact will it have on that work programme? E.g. water, climate change, urban development, biodiversity
Restoration of native forest and biodiversity
Freshwater management
Restoration of community areas
Environmental education
Increasing habitat for native or endangered species

To learn more about out group, please visit:
https://www.facebook.com/arrowtownchoppers

**We fund both one-off projects and those running over multiple years. See terms and conditions for more detail.*

Tobin's Face / Sawpit Gully Planting – Arrowtown Choppers

Funding amount

Funds requested from ECO Fund (*Please note: all funds are GST exclusive*):	$4,995.00 ex GST ($5,744.25 inc GST)
Total project costs:	$47,035.00 ex GST ($54,090.25 inc GST)
Funding allocation (breakdown of costs): *(see cost breakdown template)*	See attached Cost breakdown template
Have you applied for or received other funding for this project and what is the outcome of this?	Yes, we have been successful in receiving Trees that Count funding. This includes 4000 eco-sourced native trees (value $20,940.00)

How did you hear about the ECO Fund?

Friends

Declaration

I have read and agree to the terms and conditions and confirm that all information on this form is true and correct.

☑ Yes

Signature:	
Date:	19/10/2020

Otago Boys Sustainability Project

Amber Smith

From: JotForm <noreply@jotform.com>
Sent: Monday, 19 October 2020 9:00 a.m.
To: Eco Fund
Subject: Re: ECO Fund Application for funding UNDER $5,000 UPDATED

Environmental Enhancement Fund

Name	tim ashdown
Organisation	Otago boys High School
Address	Street Address: Otago boys high school Street Address Line 2: 2 Arthur street City/Town: dunedin Region: Otago Post Code: 9016
Phone Number	[redacted]
E-mail	[redacted]
Please provide a brief 1-2 sentence description of what your project is hoping to achieve and what funds requested are for. This will be used to promote your project on the ORC website and other communications.	build a geodesic dome shade house in order to grow native plants for dispersement free of charge to the local community.
Project name	Otago Boys sustainability project
Location of project	inside the school grounds, with access to all staff students and the community.
Project start date:	01-12-2020
Project finish date	01-02-2021
Who is involved in the project, e.g. other community groups	we have sponsorship from Mitre10 who have completed fencing of the area, the work is part of ongoing groups within the school. These include Agricultural science students and sustainability group students. It will also be part of our enviroschools submission.
Is your organisation an unincorporated membership group, an incorporated society, a trust, a charitable	a school

Otago Boys Sustainability Project

trust, or none of these?	
Are you GST registered?	yes
Project description	We would like to build a 4m wide geodesic dome shade house. This will be used to raise native plants, the work will be done by the students and enable them to gain insights into the importance of maintaining and enhancing the local communities. The plants will be donated free of charge to community projects around the region. The shade house will be visible from the road as a constant positive presence in the community and will bear the name of your fund as sponsore if you desire.
Funds requested from ECO Fund (please note: all funds are GST exclusive)	$1000
Total project costs	$1600
Funding allocation (see cost breakdown template)	kitset for dome $600 (already purchased) poles for construction- $ 500 shade cloth- $300 gravel for flooring $ 200
Have you applied for, or recieved, other funding, for this project and what is the outcome of this?	no
How did you hear about the ECO Fund?	leaflet in the school
I have read and agree to the terms and conditions and confirm that all information on this form is true and correct	Yes

Equipment for Clean up Events

Otago Regional Council

ecofund
Environment. Community. Otago.
Te Ao Turoa. Hapori. Ōtākou.

Application for funding under $5,000.00

Please supply any supporting documents as part of your application, e.g. quotes, letters of support, project detail.

Once you have completed this application please email it to ecofund@orc.govt.nz or post to:

ECO Fund
Otago Regional Council
Private Bag 1954
Dunedin 9054

CONTACT DETAILS OF PERSON/ORGANISATION

First name:	Noel
Last name:	Jhinku
Organisation:	Our Seas Our Future
Postal Address	
Number/Street name/PO Box:	[redacted]
Suburb:	Pine Hill
City:	Dunedin
Region:	Otago
Postcode:	9010
Phone number:	[redacted]
Email address:	[redacted]

PROJECT DETAILS

Please provide a brief 1-2 sentence description of what your project is hoping to achieve and what funds requested are for. This will be used to promote your project on the ORC website and other communications.

Our Seas Our Future clean-up events are carried out across the regions to engage with community groups, organisations, and the public, to protect the natural environment. Funding from the ORC Ecofund will allow for the purchase of reusable bags and litter pickup tools to enable ongoing clean-up events.

PROJECT DETAILS CONTINUED

Project name:	Equipment for Clean-up Events
Location of project:	Dunedin and surrounding areas
Project start date:	Ongoing
Project finish* date:	Ongoing
Who is involved in the project? e.g. other community groups	Our Seas Our Future volunteers, community groups/organisations, and the general public.

Is your organisation an unincorporated membership group, an incorporated society, a trust, a charitable trust, or none of these?

Incorporated Charitable Trust and a Registered Charity

Are you GST registered?

n/a

Please use the space below to describe your project, including:

1. How does the project involve or engage with the community?
2. Does the project protect the environment and what impact will this have?
3. Does the project enhance the environment and what impact will this have?
4. Does the project promote or educate others about the environment and what impact will this have?
5. Does the project align with ORC work programmes and what impact will it have on that work programme? E.g. water, climate change, urban development, biodiversity

Project description:

1. We are seeking funding for the purchase of additional reusable 60L sacks to enable community ongoing clean-up up events, with community groups and organisations, and the general public.
2. Reusable clean-up sacks are used during our clean-up events, and also distributed to community groups on permanent loan to enable self-led clean-up events.
3. Example organisations making use of these sacks include Enviro-schools, University of Otago Student groups and associations, UniCrew, Yellow-eyed Penguin Trust, Keep Dunedin Beautiful, Otago University Residential Colleges, and other businesses and individuals.
4. We would like to enable more groups to carry out self-led clean-ups, with an additional 1000 sacks to be distributed as needed, and/or used in our clean-up events.
5. Reusable clean-up sacks are sturdy in construction allowing many reuses, and provide a sustainable option to thin black trash bags that break easily.
6. In addition, we are seeking funding to purchase 30 Heavy Duty Litter Picker tools to enable easier collection of certain types of litter, and to enable volunteers to more easily pick up litter.
7. This project will help protect the environment by diverting litter away from our coastal and marine environments through community led clean-up events, and through clean-up events organised by our charity.
8. Our Seas Our Future has collectively diverted around 15,495 litres of trash away from the marine and coastal environment nationwide, including the Dunedin area within the past 2 years. Within the Dunedin area, we have diverted around 34,550 litres of trash away from the ocean between 2012 -2019.
9. All our clean-up events have an educational component where we engage with volunteers attending events on the impacts of litter in our environment. Added value of clean-up events is achieved via creating stories and updates through our high traffic social media channels.

Equipment for Clean up Events

10. Our charity is committed to engaging with the public to look after the environment through community-led initiatives, environmental education, and our clean-up work in the Otago region provides a natural alignment with the ORC's focus on coastal/marine environments, water quality, climate change, and waste.
11. OSOF operated on a 100% volunteer-run model utilising the expertise of volunteers to carry out our mission:

    Mission: To protect Aotearoa/New Zealand's coastal and marine ecosystems through advocacy, education, and environmental stewardship, ensuring that they are managed sustainably and protected for future generations.

    Website: www.osof.org.nz
    Recent examples of co-branded reusable bag use (with photos):
    1. St Margaret's College clean-up, Dunedin, February 2020: https://www.instagram.com/p/B8uk6j-JXnr/?igshid=axn8mk020v7v
    2. St Kilda Community clean-up, Dunedin, September 2020: https://www.instagram.com/p/CFojTfGMMf0/?igshid=172s8oak2mhsk
    3. St Kida Community clean-up, Dunedin, 2020: https://www.instagram.com/p/B2p-PUJpajf/?igshid=xxc3p4zqejcv
    4. School Outreach clean-up, Dunedin, August 2019: https://www.instagram.com/p/B1tCXSeJkdR/?igshid=ez21en5ie557

**We fund both one-off projects and those running over multiple years. See terms and conditions for more detail.*

Funding amount

Funds requested from ECO Fund (*Please note: all funds are GST exclusive*):	$1590
Total project costs:	$1590
Funding allocation (breakdown of costs): *(see cost breakdown template)*	$980 - Reusable Bags x 1000 units $510 - Litter Pickup Tool x 30 units $100 - Combined Shipping
Have you applied for or received other funding for this project and what is the outcome of this?	N/A

How did you hear about the ECO Fund?

Equipment for Clean up Events

Facebook

Declaration
I have read and agree to the terms and conditions and confirm that all information on this form is true and correct.

☑ Yes

Signature:	
Date:	17 October 2020

Predator Free Puahuhu

From: JotForm
To: Eco Fund
Subject: Re: ECO Fund Application for funding UNDER $5,000 UPDATED
Date: Tuesday, 22 September 2020 5:34:38 p.m.

Environmental Enhancement Fund

Name	Rebecca Orpin
Organisation	Predator free Puahuru
Address	Street Address: [redacted] Street Address Line 2: Shotover Country City/Town: Queenstown Region: Otago Post Code: 9304
Phone Number	[redacted]
[redacted]	[redacted]
Please provide a brief 1-2 sentence description of what your project is hoping to achieve and what funds requested are for. This will be used to promote your project on the ORC website and other communications.	We are a community trapping group hoping for funds for more bait and traps.
Project name	Predator free Puahuru
Location of project	Shotover country and Lake Hayes estate. We have 58 traps from the historic shotover bridge to Morven ferry road
Project start date:	22-09-2020
Project finish date	22-09-2020
Who is involved in the project, e.g. other community groups	Wakatipu Wildlife trust
Is your organisation an unincorporated membership group, an incorporated society, a trust, a charitable trust, or none of these?	We are a community trapping group under the umbrella organistion Wakatipu wildlife trust and charitable trust
Are you GST	No

Predator Free Puahuhu

registered?	
Project description	Our trapline follows the twin rivers trail which lots of locals use. We engage the community for funds a volunteer hours checking our traps. It is pest control of mostly rats, stoats and hedgehogs. We want to see more native birdlife in our new suburbs. We promote our cause on local social media pages including native bird sightings.
Funds requested from ECO Fund (please note: all funds are GST exclusive)	1500
Total project costs	Bait $500 for the year and 10 +more traps
Funding allocation (see cost breakdown template)	$500 for bait for a year and 10 + more traps
Have you applied for, or recieved, other funding, for this project and what is the outcome of this?	Not this year. We have spent all the funds we got on traps and bait.
How did you hear about the ECO Fund?	Facebook
I have read and agree to the terms and conditions and confirm that all information on this form is true and correct	Yes

Project Salt

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Application for funding over $5,000.00

Please supply any supporting documents as part of your application, e.g. quotes, letters of support, project detail.

Once you have completed this application please email it to ecofund@orc.govt.nz or post to:

ECO Fund
Otago Regional Council
Private Bag 1954
Dunedin 9054

CONTACT DETAILS OF PERSON/ORGANISATION

First name:	Cathy
Last name:	Rufaut
Organisation:	Department of Geology, University of Otago
Postal Address	
Number/Street name/PO Box:	Leith Street, PO Box 56
City:	Dunedin
Region:	Otago
Postcode:	9016
Phone number:	[redacted]
Email address:	[redacted]

PROJECT DETAILS

Please provide a brief 1-2 sentence description of what your project is hoping to achieve and what funds requested are for. This will be used to promote your project on the ORC website and other communications.

This project seeks to construct new areas of saline substrate on private land in Central Otago, to control weeds and expand habitat area for dwindling inland populations of indigenous, salt-tolerant plant species. These small, specialised plants include species listed as rare and endangered by the Department of Conservation. They represent a very special part of Otago's heritage and biodiversity.

Project Salt

PROJECT DETAILS CONTINUED

Project name:	**Project Salt:** Securing a future for saline habitats in Central Otago
Location of project:	Alexandra
Project start date:	November 2020
Project finish* date:	December 2021

Who is involved in the project? E.g. other community groups

• **The Department of Geology** (Otago University) will lead the project and provide expertise.
• **Private Properties** will provide sites for the project work to be conducted.
• **Haehaeata Natural Heritage Trust and their Clyde Rail Head Nursery** will trial rare plant species propagation.
• **New Zealand Marine Studies Centre** will develop and deliver a new school outreach programme.
• **QEII National Trust** will facilitate landowner relationships and provide botanical expertise.

How many volunteers are involved in the project?

• 15 nursery workers
• 5 trustees & staff
• 12-16 individuals as private landowners
• 2 school outreach coordinators
= total 34 - 38 full volunteers + 3 partial volunteers (offering 50% in-kind input)

How many volunteer hours are you expecting for this project?

• approx. 200 hours from collective full volunteers (average 4 hours/week collectively for 12 months).
• approx. 144 hours from expertise and leadership (from in-kind input)
= total 344 hours estimated

How will you acknowledge the funding you receive from ORC?

• Websites, Facebook & Instagram from the Department of Geology, QEII National Trust Haehaeata Natural Heritage Trust, New Zealand Marine Studies Centre
• ODT newspaper articles
• Community & academic oral presentations & posters during workshops
• Acknowledgements in any manuscripts published in scientific journals/magazines

Is your organisation an unincorporated membership group, an incorporated society, a trust, a charitable trust, or none of these?

The University of Otago

Are you GST registered?

Yes

Please use the space below to describe your project, including:

1. How does the project involve or engage with the community?
2. Does the project protect the environment and what impact will this have?
3. Does the project enhance the environment and what impact will this have?
4. Does the project promote or educate others about the environment and what impact will this have?
5. Does the project align with ORC work programmes and what impact will it have on that work programme? E.g. water, climate change, urban development, biodiversity

Project description:

The problem is inland salt pans and their biota are now extremely rare in NZ
The arid climate and unique geology of the Central Otago region has promoted a concentration of land surfaces that naturally develop saline conditions like nowhere else in New Zealand. In the Maniototo Basin, Manuherikia and Upper Clutha Valleys, an estimated 40,000 hectares of salt pans existed around 200 years ago. Today, inland saline areas are highly fragmented and cover only approx.100 hectares. Land development and lack of

Project Salt

understanding the salinity dynamics has led to the saline soils of Central Otago now representing a residual ecosystem, with dwindling populations of unique plant and invertebrate species (refer species examples in Table 1 attached).

A custodial community is imperative to preserve saline habitat
The majority of saline soil sites left in Central Otago exist on private land (refer attached Letter of Support). There are 4 sites in public conservation land and 2 sites as private QEII covenants. Therefore, the protection and enhancement of inland saline environments and their special species relies heavily on public education, engagement, and action.

This project proposal expands on a small pilot study that has engaged Central Otago community members from the outset, in collaboration with the Department of Geology (University of Otago). There are four groups of community organisations/members that are central to this project's operations:

1) individual landowners – this project targets specialised indigenous biodiversity on private land in Central Otago and empowers individual households to carry out a custodial role in protecting and enhancing a highly threatened regional ecosystem on their land; saline soils.

2) Haehaeata Natural Heritage Trust – this Trust runs a community-plant nursery, the Clyde Rail Head Nursery, that specialises in raising local, eco-sourced plant species for projects involved in restoring indigenous biodiversity in Central Otago (https://www.tekakano.org.nz/clyde-railhead-community-nursery).

3) the QEII National Trust – the Central Otago representative for this Trust has existing relationships with private landowners in Central Otago and good knowledge of saline site localities and plant species distributions (https://qeiinationaltrust.org.nz).

4) Enviroschools – one of the landowners involved in our pilot study is the facilitator for Central Otago Enviroschools, who would work together with University outreach staff to involve Dunstan High School and Cromwell College students in the proposed project (https://enviroschools.org.nz/regions/otago/).

New science has identified effective management techniques for inland saline sites
This project has capacity to create 12-18 new local areas that are predicted to turn salty with time and support the introduction or expansion of associated specialised species.

Updated research into the origins and deposition of salt in Central Otago was conducted between 2013-2018. The studies were led by Prof. Dave Craw in the Department of Geology at Otago University. This new, published research has conclusively over-turned and clarified earlier views on saline soil ecology in Central Otago (see papers in Table 2 attached). Consequently, clear, pragmatic management actions for saline habitat preservation and enhancement have been updated, backed by the latest science, and now need to be transferred into the wider community.

Our project proposes to construct new areas of saline soils on private land around Alexandra and Ranfurly by working alongside landowners to manipulate key physical and geochemical aspects of the inland salinity cycle. We are seeking funding to trial the effectiveness of these actions on a small scale. Our goal is to measure and assess trial areas on 6-8 properties for five years, so future funding will be sought. At the conclusion of this project, the outcome should be a well-informed community capable of making good, knowledge-informed decisions regarding saline soil management, alongside regional authorities.

Central Otago saline soils develop on land surfaces when the substrate is very fine-grained and impermeable, i.e. clay and mudstone. Incoming rain from the Pacific and Tasman seas

Project Salt

contains marine aerosols of sea salt (halite) that are deposited on these impermeable substrates during rain events. High rates of evaporation from Central Otago's arid climate further concentrate salt on these surfaces. Ongoing micro-scale erosion and weathering distribute the salt downslope from the impermeable 'catchment' to replenish a salt pan area available for the specialised indigenous species (see explanatory cartoon from Rufaut et al. (2018) attached).

Salinity values above 1000 µS electrical conductivity favour the indigenous salt-tolerant plant community whereas adventive plant species dominate in conditions < 1000 µS conductivity. Although indigenous halophytes tolerate lower salinity, they cannot compete with the bigger biomass of adventive grasses and weeds. Hence, loss of salt on the surface breaks down the competitive edge indigenous plant species need to be successful in modern-day saline environments (see explanatory diagram from Rufaut et al. (2018) attached).

In this project, we will approach landowners who have properties nearby to known saline sites. We will run volunteer working bees with Haehaeata Trust's volunteers to bring the impermeable substrate layer to the surface, by scraping off the non-saline forming cover material (soil, loess, gravel). Medium-sized plots, measuring no more than 5m x 5m, will be formed to initially keep disturbance levels contained yet will provide adequate space for the small, specialised halophytes. Two-three plots per property will be set up.

Baseline measurements of pH and electrical conductivity (as a reliable proxy for salinity) will be measured in each plot. Monthly repeat measurements and photo-points will be taken to assess the development of surface saline conditions and associated time frames. Laboratory work in the Geology Department will confirm identification of salt crystals and their distributions.

The nationally vulnerable Buchanan's orache, *Atriplex buchannii*, will be planted/transplanted into at least one plot per property, pending permission from the Department of Conservation (see attached photo below). We will work alongside the Haehaeata Trust and their nursery volunteers to support a trial for the propagation of another one or two rare plant species for saline soil revegetation purposes.

Science and student engagement are needed to secure future saline soil biodiversity
The transfer of scientific knowledge into the Central Otago community regarding saline ecosystems is important for the success of this project. Longer term, it is also important for securing future sites to expand saline soil biodiversity in the region. We will address science and young people's engagement at number of levels.

First, we will build on existing efforts already made by Geology Department staff to present and talk to community members in Alexandra. The landowners directly involved with the project will be individually trained in and provided with a conductivity meter, as well as photo-points, to regularly measure the conditions of their saline trial plots throughout the duration of this project.

Second, a local community member will be employed as a part-time project manager to liaise with the landowners, coordinate and collate landowner data collection, facilitate problem-solving, liaise with Haehaeata Natural Heritage Trust over species propagation, post regular project updates, etc. The project manager will have direct access to input from both geological and botanical (QEII) experts in saline ecosystems.

Third, we will develop and deliver a high school outreach programme titled 'Sea salt to inland basins' to Dunstan High and Cromwell College by collaborating with Enviroschools as well as the Aquavan from the New Zealand Marine Studies Centre. Students will learn about the inland salinity cycle, ways to measure it, and implications for biodiversity. The project manager will facilitate high school student visits to some of the private properties hosting trial plots.

Project Salt

In a corona virus setting, funds from this project will directly support individual salaries and some expenditure with charitable organisations.

Aligns with ORC work programme
This project aligns with the Desired Outcomes 1, 2 & 3 in the ORC Biodiversity Strategy, Our Living Treasure by enhancing and protecting threatened species and their saline habitats, as well as substantially increasing community awareness of these special ecosystems that are distinctly Central Otago.

The project also supports and fits in with three of the Guiding Principles in the Biodiversity Strategy; co-led by communities, focus on whole ecosystems (physical and biological), and coordinated and collaborative (between community-run organisations as well as Otago University).

**We fund both one-off projects and those running over multiple years. See terms and conditions for more detail.*

PROJECT DETAILS CONTINUED

Project description continued:

Some supporting images and information is attached below:

Project Salt

SOME OF THE SPECIALISED INDIGENOUS SPECIES ON SALINE SOILS:

Table 1. Iconic saline flora, with species' status in New Zealand, at Springvale and Chapman Road Reserves (from Allen and McIntosh 1997).

Species	Family	Status
Apium prostratum (A.Rich.) Kirk	Apiaceae	Not threatened
Atriplex buchananii (Kirk) Cheeseman	Amaranthaceae	Nationally vulnerable
Ceratocephala pungens Garn.-Jones	Ranunculaceae	Nationally critical
Chenopodium glaucum var. *ambiguum* R.Br.	Amaranthaceae	Not threatened
Hordeum spp.[a]	Poaceae	Naturalised 1860s
Lepidium kirkii Petrie	Brassicaceae	Nationally critical
Myosotis brevis de Lange et Barkla	Boraginaceae	Nationally vulnerable
Myosurus minimus subsp. *novae-zelandiae* (W.R.B. Oliv.) Garn.-Jones	Ranunculaceae	Nationally endangered
Plantago coronopus[a] L.	Plantaginaceae	Naturalised 1873
Puccinellia raroflorens Edgar	Poaceae	Nationally critical
Puccinellia fasciculata[a] (Torr.) E.P. Bicknell	Poaceae	Naturalised 1935
Puccinellia stricta (Hook.f.) Blom.	Poaceae	Not threatened
Sedum acre[a]	Crassulaceae	Naturalised 1904

[a]Denotes exotic species.

LETTER OF SUPPORT FOR THE PROJECT BY DEPARTMENT OF CONSERVATION:

16/10/2020

Department of Conservation
43 Dunstan Road
Alexandra 9320

Kia Ora

The Inland Saline ecosystem is a naturally rare ecosystem which has been classified (Holdaway et. al, 2012) as Critically Endangered. They are restricted to localised areas of Central Otago including the Lower Manuherikia valley, the Maniototo Plain, and the Clutha valley.
Most sites have been destroyed by extensive pasture and irrigation development. The sites that are left are threatened by several factors including weed encroachment, stock, rabbits, and erosion.
The ecosystem supports several threatened plant species some which are confined to only this ecosystem type. These species include the national critical saltgrass *Puccinellia raroflorens*, and the nationally vulnerable Buchanan's orache *Atriplex buchananii* .
The Department of Conservation (DOC) has recently run an ecosystem prioritisation process and has identified inland saline salt pans at number 6 in a list of 92 naturally rare ecosystems, in terms of urgency for research to inform management and increase management efficiency.
Much of the remaining saline soil in Central Otago is found on private land. The Alexandra DOC Office manages salt pan sites at four reserves. It also undertakes weed control at an additional 6-8 sites on private land. Each of private land site is generally small and constantly under pressure from weeds and farming practices. However together they form a major contribution to the overall land area of this threatened ecosystem and are vital in maintaining the presence of this natural ecosystem within highly modified landscapes.
Any project that targeted the preservation and enhancement of saline sites on private land would make a valuable contribution to the overall preservation and enhancement of this ecosystem and its associated flora and fauna. It would be great for landowners to have the opportunity to be more involved in the conservation of this special ecosystem. This proposed work would also complement the management and research proposed by DOC to maintain the ecological values of these saline sites.

Project Salt

Nga mihi

Sasha Roselli

Biodiversity Ranger
Department of Conservation Alexandra

SCIENCE PAPERS LINKED TO THIS PROJECT:

Table 2. List of Geology Department papers published in journals that have clarified the status and condition of saline soils in Central Otago:

Craw, D, Druzbicka, J, Rufaut, C, Waters, J. 2013. Geological controls on paleo-environmental change in a tectonic rain shadow, southern New Zealand. *Paleogeography, Paleoclimatology, Paleoecology 370:* 103-116.
Druzbicka, J, Rufaut, D, Craw, D. 2015. Evaporative mine water ontrols on natural revegetation of placer gold mines, southern New Zealand. *Mine Water and the Environment 34:* 375-387.
Law, S, Rufaut, C, Lilly, K, Craw, D. 2016. Geology, evaporative salt accumulation and geoecology at Springvale historic gold mine, central Otago, New Zealand. *New Zealand Journal of Geology and Geophysics 59:* 382-395.
Rufaut, C, Craw, D, Druzbicka, J, Law, S. 2018. Conservation of saline patches in Central Otago needs better recognitions of physical processes to secure future habitats. New Zealand Journal of Botany 56: 115-126.

SALT ON AN IMPERMEABLE CLAY SURFACE ON PRIVATE PROPERTY ADJACENT TO CHAPMAN RD RESERVE. THIS PROJECT AIMS TO INDUCE MORE OF THESE CONDITIONS BY REMOVING THE WEEDY, NON-SALTY COVER MATERIAL:

Project Salt

CARTOON DIAGRAM IN RUFAUT ET AL. (2018) SHOWING KEY ELEMENTS IN THE SALINITY CYCLE AND VEGETATION THAT CAN BE MANIPULATED TO CONSTRUCT NEW AREAS THAT HAVE POTENTIAL TO TURN SALTY WITH TIME:

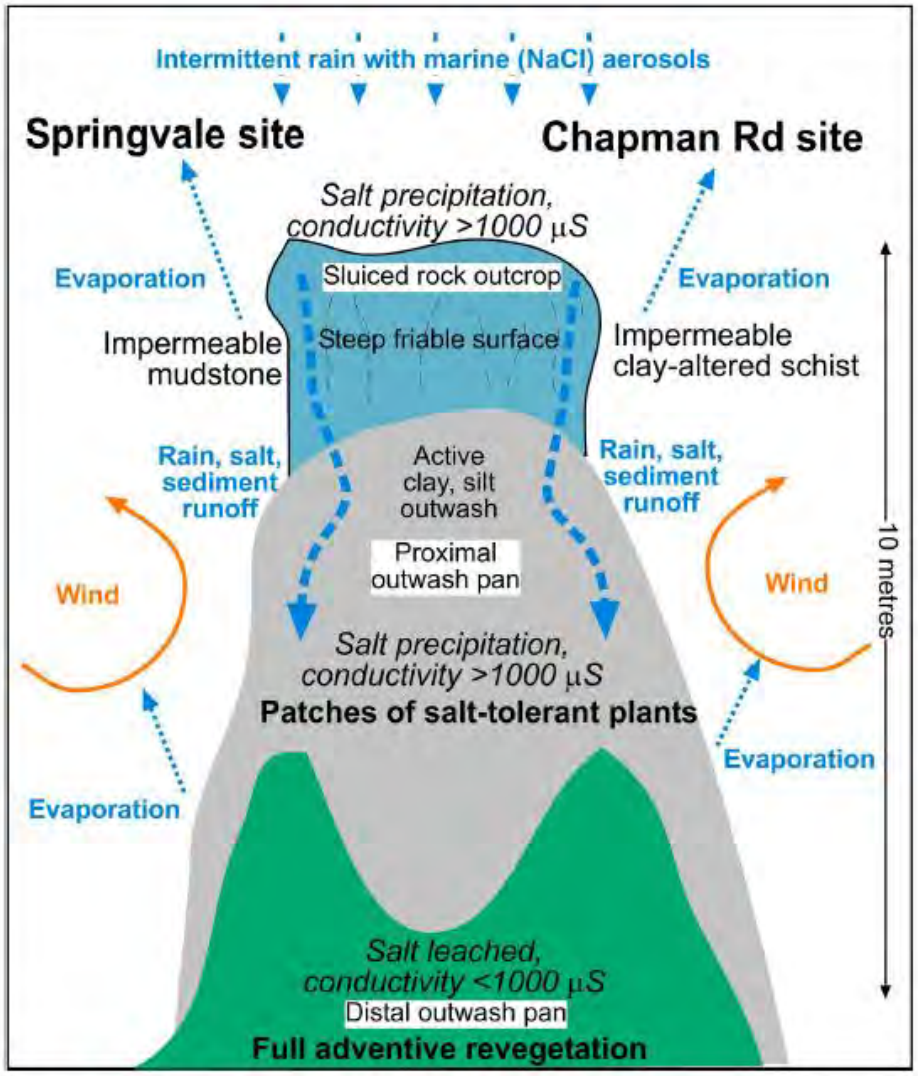


Figure 4. Schematic diagram of Chapman Road and Springvale Reserves summarising the principal features and processes relevant to salination in relation to a post-mining environment. Outcrops of fine material (mudstone or clay-altered schist), brought to the surface by historic mining activities, have high salinity due to impermeable surfaces and high saline precipitation from marine aerosols. Conductivity is greater than 1000 µS on the steep, friable faces of the outcrops, which are still bare > 70 years post mining. Wind and rain erosion of the outcrops forms dynamic outwash planar fans, with similar conductivity to the outcrops in the proximal areas showing recent run-off. On distal areas of the fans, conductivity drops markedly with distance from outcrops as salt is leached. Over time, individual rock outcrops are being reduced in size and stability due to ongoing weathering.

Project Salt

ATRIPLEX BUCAHNNI WITH PURE HALITE CRYSTALS SHOWS THE HIGH TOLERANCE INDIGENOUS PLANT SPECIES HAVE FOR SALTY CONDITIONS AND THE ROLE SALT PLAYS IN MAINTAING THEIR PERSISTENCE IN WEEDY LANDSCAPES:

A PILOT RUN IN AUGUST 2020; VOLUNTEERS AND GEOLOGY DEPT. STAFF WORK ON SCRAPING OFF WEEDY GRAVEL TO EXPOSE THE UNDERNEATH CLAY SURFACE THAT HAS POTENTIAL TO TURN INTO SALTY HABITAT.

Project Salt

PROJECT DETAILS CONTINUED

Funding amount

Funds requested from ECO Fund (*Please note: all funds are GST exclusive*):	**$37,300**
Total project costs:	$53,940
Funding allocation (breakdown of costs): *(see cost breakdown template)*	**Community Engagement and Outreach** Purchase 6 x pH/electrical conductivity field meters for research sites = $8,200 (quote attached) Contract 3 days Aquavan school outreach "Sea Salt to Inland Basins" programme at $500/day + $1/km mileage (400km) + $150/night accommodation/staff member = $2,200 (quote from NZMSC) Contribute to community plant nursery supplies for plant propagation (e.g. pots, potting mix, bench space, anti-rust spray, volunteer sustenance) = $2,000 Run workshop and community meetings (hall hire x 3 days, catering, printing costs, advertising) = $1,000 Geology Department outreach staff at 2 days = $380 (in-kind) Enviroschools facilitator at 2 days = $460 (in-kind) Community volunteers at 200 hours @$25/hour =$5,000 **Project salaries** Project Leader (Cathy Rufaut) at 12 days at $400/day = $4,800 (50% in-kind) Local project manager at 4 hours per week for 47 weeks @ $50.00/hr incl. mileage = $9,400

Project Salt

	Expert input in Geology (Dave Craw) at 12 days (50% in-kind) at $700/day = $8,400 (50% in-kind) Expert input in Botany (QEII Central Otago Rep) at 12 days (50% in-kind) at $700/day incl. mileage = $8,400 (50% in-kind) Mileage for travel from University to Central Otago 0.79c/km for 6 trips of 400km = $1,900 Accommodation in Alexandra for 2 University staff $150/night/staff member for 6 nights = $1,800
Have you applied for or received other funding for this project and what is the outcome of this?	No

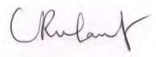
How did you hear about the ECO Fund?

Email announcement from the Catchments Otago research group at University of Otago

Declaration

I have read and agree to the terms and conditions and confirm that all information on this form is true and correct.

✓Yes

Signature:		Martin Gagnon Director, Research & Enterprise
Date:	19 October 2020	20-Oct-2020

WRT - Educate for Nature

Otago Regional Council

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Environment. Community. Otago.
Te Ao Turoa. Hapori. Ōtākou.

Application for funding over $5,000.00

Please supply any supporting documents as part of your application, e.g. quotes, letters of support, project detail.

Once you have completed this application please email it to ecofund@orc.govt.nz or post to:

ECO Fund
Otago Regional Council
Private Bag 1954
Dunedin 9054

CONTACT DETAILS OF PERSON/ORGANISATION

First name:	Karen
Last name:	O'Donahoo
Organisation:	Wakatipu Reforestation Trust
Postal Address	
Number/Street name/PO Box:	PO BOX 2260
Suburb:	Wakatipu
City:	Queenstown
Region:	Otago
Postcode:	9349
Phone number:	[redacted]
Email address:	[redacted]

PROJECT DETAILS

Please provide a brief 1-2 sentence description of what your project is hoping to achieve and what funds requested are for. This will be used to promote your project on the ORC website and other communications.

WRT - Educate for Nature

WRT's Vision:
To protect and restore the native biodiversity of the Wakatipu Basin through revegetation projects, collaboration, education and advocacy.

Summary:
Since 2015, the Wakatipu Reforestation Trust has developed a proven track record in leading the restoration of native biodiversity in the Wakatipu Basin through community / volunteer led activity and delivery of education programs.

Key achievements to date:

- Community Nursery is growing up to 10,000 native plants per year from eco-sourced seeds
- Support and training of volunteers at weekly nursery sessions (approx 1500 volunteer hours annually)
- Community planting days: approx 50,000 natives planted onto public land (approximately 1000 volunteer hours annually).
- 6 keystone sites, 2 of which have been planted to capacity.
- 30 community sites around the Wakatipu Basin
- Dedicated site maintenance by volunteers (approximately 1000 volunteer hours annually)
- *Educate for Nature* programs are currently delivering hands-on environmental learning into: 6 schools, 3 preschools, 6 youth groups.

Due to the impact of our ongoing work, the Trust has grown over the past year with significantly higher volunteer numbers both at our community nursery & planting days, as well as increased demand for both Education & Outreach programs and native plants.

We are seeking funding for 2 key roles within our organisation that support the delivery of our vision and strategic plan:

- Education & Outreach Officer (20 hours / week)
- Nursery Manager (15 hours / week)

Both of these positions directly support ORC's key criteria of:

- Community engagement
- Environmental protection & enhancement
- Community wide education

They also directly impact ORC's Work Programs of ***water, climate change & biodiversity***, the details of which are addressed in full in the body of our application.

Thank you for taking the time to consider our application and we look forward to your positive response.

PROJECT DETAILS CONTINUED

Project name:	WRT - Educate for Nature
Location of project:	Queenstown
Project start date:	1 January 2021
Project finish* date:	30 December 2021

Who is involved in the project? E.g. other community groups

Most Queenstown schools, education providers & general community members

How many volunteers are involved in the project?

approx 550 volunteers (nursery, maintenance, planting days)

How many volunteer hours are you expecting for this project?

Approx volunteer 3500 hours annually

How will you acknowledge the funding you receive from ORC?

Logo on Sponsors Page on our website, Email announcement, FB announcement, Newsletter.

Is your organisation an unincorporated membership group, an incorporated society, a trust, a charitable trust, or none of these?

Charitable Trust

Are you GST registered?

Yes

Please use the space below to describe your project, including:

1. How does the project involve or engage with the community?
2. Does the project protect the environment and what impact will this have?
3. Does the project enhance the environment and what impact will this have?
4. Does the project promote or educate others about the environment and what impact will this have?
5. Does the project align with ORC work programmes and what impact will it have on that work programme? E.g. water, climate change, urban development, biodiversity

Project description:

THIS APPLICATION:
Thanks to the success and impact of our work, we have seen a huge increase in volunteer numbers, demand for increased nursery production and requests for educational opportunities in schools and at the nursery. As a result we are seeking funding for the following 2 roles:

1) Education & Outreach Officer (20 hours per week)
Funding for our Education Officer runs out 30 Jan 2021, so we are urgently seeking funding for the extension of this role.

This role focuses on the development and delivery of our unique *Educate for Nature* programs, along with all aspects of WRT's community education, outreach and advocacy work, including:

- educational visits to our nursery (8 per year)
- support of school planting projects (5 schools supported)

- support of conservation week activities
- host forums, workshops, fieldays to increase community engagement

2) Nursery Manager (15 hours per week)
Our Nursery Manager is funded through a private individual, for 5 hours per week. This role (which started in early 2020) has proven invaluable for our operations, and we are seeking to further fund this role to 15 hours per week (2 days per week).

This role focuses on all aspects of the operations and management of our community nursery, including:

- running our weekly volunteer nursery sessions (up to 30 volunteers per week)
- supporting and providing nursery skills development of our volunteers
- educating our volunteers about the many and varied plants within the nursery
- supporting corporate volunteer group visits to the nursery
- optimising our nursery operations to ensure healthy plants
- coordinating and planning plant propagation to ensure we have sufficient numbers of plants in the nursery for our planting campaigns

The following section addresses ORC's funding criteria directly:

How does the project involve or engage with the community?

WRT's Community Nursery and our Keystone sites are the foundation and centrepiece of our education programs, facilitating community participation, engagement and education activity.

Under WRT's *Educate for Nature* program the Education & Outreach Officer and Nursery Manager provide leadership and support to schools, community groups and the general public to learn about and engage in conservation through the following:

- weekly volunteer nursery sessions
- corporate volunteer nursery sessions
- monthly *Lunch and Learn* environmental learning sessions
- conservation week activities
- school educational visits to nursery
- support school planting initiatives eg wetland restoration
- development and promotion of educational content via newsletter & other channels

The growth in school and community engagement is resulting in an overall increase in the restoration of public land in urban areas, and therefore providing the opportunity for residents to play a role in stewardship of their local environment. The ongoing interest in and success of these programs is delivering the following outcomes:

- Empowering communities through education to take on local restoration projects on public land and thus directly contributing to local biodiversity gains.
- Improving mental & physical health and social outcomes by providing opportunities for people of all ages and abilities to spend time in nature, while providing family and social time, away from "devices" at no cost to the participants

The Trust is committed to engaging and embracing Matuaranga Maori, including present day, historic, local and traditional knowledge within the context of biodiversity. Examples of this include, but are not limited to:

- use of Te Reo Maori - incorporating Te Reo Maori in all educational resources
- rongoa - traditional uses of plants

- delivering concepts of Kaitiaki
- advocating for taonga species
- facilitating/supporting opportunities for the development of pa harakeke.

We are actively working to build strong relationships with our local runaka, and exploring opportunities to work together to create culturally inclusive educational content.

Does the project protect the environment and what impact will this have?

Protection of the environment is at the heart of all of our activities, and our Education programs provide critical support to ensure long term success of all revegetation projects within schools, community groups, and our Keystone sites. While the Trust is focused on reforestation, our education encompasses the broader system of ecosystem restoration.

In order to ensure long term successful impact on the environment, our programs are clearly and carefully planned, implemented, monitored and maintained over the successive years. Both our Education & Nursery roles support this by:

- ensuring appropriate plant selection for each site
- ensuring plants are healthy prior to being sent out of the nursery
- providing planning templates to school groups for plant species & maintenance schedule
- pre-planting site visits
- site planning including removal of invasive plant species
- planning for exclusion of, and or management of threats such as rabbits, goats
- post planting site visits
- annual monitoring of plant growth

The success of these revegetation projects is helping to foster stewardship of the environment in the long term. It is hoped that many of these participants will become advocates for a healthy environment. Additionally, confidence gained through these projects has allowed school groups and individuals to extend their thinking and contribution to the environment.

WRT actively supports the predator control work of Wakatipu Wildlife Trust. We have predator traps installed in 3 of our keystone sites, and will continue to work toward increasing this in the future. Our education programs include conversations around the importance of predator control as part of overall environment conservation.

Does the project enhance the environment and what impact will this have?

All our native plants are eco sourced from throughout the Wakatipu Basin, and grown from seed, preventing the further loss of local genes and characteristics. These plants are more adapted to the local environmental conditions and have a greater chance of survival.

The nursery propagates over 80 native species, including several which have a conservation status of threatened and endangered. These seeds are collected from wild remnant populations, playing an important role in halting the decline of these species and restoring healthy populations. The Nursery Manager plays a pivotal role ensuring the nursery is hygienic, preventing spread of plant pathogens, resulting in fewer pests and or disease problems.

Our Nursery Manager supervises the Wednesday volunteer nursery session, training and upskilling volunteers to ensure the correct techniques and procedures are undertaken. As a result of focused supervision and training of volunteers, our plant production is becoming

more efficient. All of the above promotes the growth of healthy plants and high survival rates within the nursery.

Our key impacts are:

- restoring and improving the biodiversity of the Wakatipu Basin's ecosystems through revegetation
- conservation of endangered plant species
- halting and restoring land degradation and creating environmental resilience to climate change through planting, therefore:
    - restoring soil health
    - minimising risk of flooding
    - moderation of climate
    - recycling of nutrients
    - control of pests
    - promoting pollination
    - filtering contaminants resulting in cleaner waters.

WRT's keystone sites include different threatened ecosystems including:

- grey shrubland
- wetlands
- riparian margins.

The addition of community and school planting projects also provides important ecological corridors and stepping stones to allow species to move between reserves.

Does the project promote or educate others about the environment and what impact will this have?

Education is one of the 4 pillars of our strategic plan. Education and community engagement are crucial for facilitating grassroots awareness of the environment issues faced not only by our community, but globally. We believe that educating and working within schools and the broader community is critical in order to halt further biodiversity loss and improve outcomes for the environment and people.

As demand for education and outreach increases, we are constantly working to extend our reach to include youth and the general public. In support of this, our *Educate for Nature* program includes the development of locally relevant, easily deciphered and accessible educational material and resources.

Our goal is to educate and empower the general public of the benefits of our native plant species and associated ecosystems but importantly, feel inspired to act.

The impact of our education and outreach work includes:

- Provide hands on, experiential learning opportunities for children, that goes beyond the current schools based curriculum
- Grow knowledge and understanding of our local flora and it's importance both culturally and naturally.
- Encourage & support individuals, families, schools and communities to learn, connect and think about the part they can play in creating a healthy environment in which we can all thrive.
- Enhance attitudes and awareness towards our local environments.
- Help support educators to deliver plant based knowledge and strengthen the delivery of practical and hands on revegetation and restoration projects.

Does the project align with ORC work programmes and what impact will it have on that work programme? E.g. water, climate change, urban development, biodiversity?

WRT's vision and strategic plan guide our work, and closely aligns with the following ORC work programs:

Water: ORC - Lake Hayes Restoration Programme:
WRT has 2 sites that directly impact the health of Lake Hayes being:

- Slope Hill Road catchment and
- Lake Hayes South.

To date, over 6050 natives have been planted on these sites. Additionally, we have a long term commitment to the removal of invasive species along the Slope Hill Road stream, with priority given to ensuring adequate numbers of riparian plants being grown in our community nursery.

Our Shotover Primary School's Education / Revegetation program at Shotover Wetlands (regionally significant wetland) promotes a community wide understanding of the importance of restoration of our fragile wetlands. Educational signage has been installed at the Shotover Wetland, with signage under development for the Lake Hayes South wetland and Slope Hill riparian site.

Climate Change:
The pre-human vegetation of the Wakatipu Basin has largely been removed. Many of our planting sites are either barren, or covered in woody weeds and grasses. The regeneration of these sites has a direct impact on climate change by replacing barren sites with shrubs and trees that will absorb and store the carbon dioxide emissions which are driving global heating.

Biodiversity:
Protection and restoration of biodiversity is the core of all of our work. Our work embraces and aligns these values by our commitment to:

a) eco-sourcing seeds,
b) growing and planting natives suitable to the Wakatipu Basin
c) maintenance of our sites until plants are large enough to out compete invasive species
d) monitoring

a) Eco-sourced seeds
Eco-sourcing of seeds to provide the inputs for our nursery, protects the genetic heritage of our native plants. Our volunteers collect seeds from throughout the Wakatipu Basin. These seeds are germinated and grown within our community nursery until they are large enough to be planted onto public land.

b) Natives from the Wakatipu
With expert guidance from our Chairman, Neill Simpson (local botanist), only plant species native to the Wakatipu Basin are grown in our nursery and planted on site. These plants provide critical habitat and food sources for our native birds, invertebrates and insects. Part of the role of our Education Officer is the knowledge captured and sharing of knowledge of plant species and the role they play in the overall ecosystem restoration.

Each site is assessed to ensure micro-climate appropriate plants are planted. This ensures maximum plant survival.

c) Maintenance

Site maintenance is undertaken by a team of volunteers, and while not within the umbrella of this funding application, it is critical to note that WRT's commitment to site maintenance is one of the key factors in the successful regeneration of the sites we have planted.

d) Monitoring
Monitoring enables us to record and report on our successful plantings over time. We keep photographic records from each site as well as using monitoring points and areas to check plant survival rates.

PROJECT DETAILS CONTINUED

Project description continued:

WRT - Educate for Nature

We attached the following supporting documentation:

1) Cost Breakdown Template
2) Powerpoint Presentation - summary of our application in easy to read format including lots of photos of our work and educational materials
3) WRT Annual Report from our Founder and Chairman, Neill Simpson
4) Permission to work on public land
    a) QLDC Volunteer Agreement
    b) Dept Conservation Memorandum of Understanding
5) Letters of Support
    a) QLDC
    b) Department of Conservation
    c) Shotover Primary School
    d) Arrowtown Primary School
    e) Dingle Foundation / Wakatipu High School
    f) Enviro-schools
    g) Arrowtown preschool
    h) Wakatipu Youth Trust

ORC Funding Report from 1 July 2019-1 July 2020 to follow tomorrow (our apologies this is not included - refer email to Shayde Bayne 20 Oct 2020) - attached also.

WRT - Educate for Nature

PROJECT DETAILS CONTINUED

Funding amount	
Funds requested from ECO Fund (*Please note: all funds are GST exclusive)*:	**$28,075**
Total project costs:	$56,150
Funding allocation (breakdown of costs): *(see cost breakdown template)*	**Education Officer:** 20 hrs/week, 40 weeks/yr. Rate: $40 / hr 1 Jan - 30 Dec 2021 **$32,000** **Nursery Manager**: 15 hrs/week, 46 weeks/yr. Rate: $35 / hr **$24,150**
Have you applied for or received other funding for this project and what is the outcome of this?	**Education Officer:** We applied to the DOC Community Fund in April, but were unsuccessful. This role is currently reduced to minimum hours while we seek additional funding. **Nursery Manager:** A private citizen is currently funding this role for 5 hours per week for 3 years, commencing in 2020. We are seeking additional funding for the expansion of role.

How did you hear about the ECO Fund?

Previous ORC Application 2019

WRT - Educate for Nature

Declaration I have read and agree to the terms and conditions and confirm that all information on this form is true and correct. x Yes	
Signature:	
Date:	20 October 2020

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Application for funding over $5,000.00

Please supply any supporting documents as part of your application, e.g. quotes, letters of support, project detail.

Once you have completed this application please email it to ecofund@orc.govt.nz or post to:

ECO Fund
Otago Regional Council
Private Bag 1954
Dunedin 9054

CONTACT DETAILS OF PERSON/ORGANISATION

First name:	Claire
Last name:	Becker
Organisation:	Haehaeata Natural Heritage Trust (HNHT)
Postal Address	
Number/Street name/PO Box:	[redacted]
Suburb:	RD 1
City:	Alexandra
Region:	Central Otago
Postcode:	9391
Phone number:	[redacted]
Email address:	[redacted]

PROJECT DETAILS

Please provide a brief 1-2 sentence description of what your project is hoping to achieve and what funds requested are for. This will be used to promote your project on the ORC website and other communications.

Our Native Planting projects, using local eco sourced plants to continue to enhance threatened and vulnerable Dryland Ecosystems and develop the native biodiversity of our area. Community participation is raising awareness of these ecosystems and their vulnerable status.
Funds will be used to continue to pay for the position of a project co-ordinator who will engage volunteers, community groups and school groups to be involved in restoration projects.

PROJECT DETAILS CONTINUED

Project name:	Planting Projects for Biodiversity
Location of project:	Alexandra/Clyde Basin
Project start date:	1 June 2021
Project finish* date:	31 May 2022

Who is involved in the project? E.g. other community groups

HNHT, Clyde Railhead Community Eco Nursery Volunteers, Galloway Planting Group, Keep Alexandra Clyde Beautiful, Enviro Schools programmes with St Gerards School, Clyde School, Alexandra Primary School, Tarras School, Poolburn School and Dunstan High School, Project Gold Clyde Bridge, Central Otago Whitewater Inc, Millers Flat River Planting Group. Central Otago Ecological Trust, Alexandra Rotary, Clyde and Districts Lions Club.

How many volunteers are involved in the project?

16-20 regular nursery volunteers, 100+ planting volunteers from above community groups.

How many volunteer hours are you expecting for this project?

400 Hours, comprising of planting time for 1450 plants plus logistics

How will you acknowledge the funding you receive from ORC?

In newsletter, signs, and public statements in media and on Facebook, and posters.

Is your organisation an unincorporated membership group, an incorporated society, a trust, a charitable trust, or none of these?

A Registered Charitable Trust. No CC54723

Are you GST registered?

No

Please use the space below to describe your project, including:

1. How does the project involve or engage with the community?
2. Does the project protect the environment and what impact will this have?
3. Does the project enhance the environment and what impact will this have?
4. Does the project promote or educate others about the environment and what impact will this have?
5. Does the project align with ORC work programmes and what impact will it have on that work programme? E.g. water, climate change, urban development, biodiversity

Project description:

The Haehaeata Natural Heritage Trust (HNHT) was formed 4 years ago, as a governing body for the Clyde Railhead Community Eco-Nursery.
Our vision and mission are...
Vision: Our Communities thriving with Landscapes and Corridors rich in habitats of indigenous flora and fauna.

Mission: Fostering communities and partnerships to share in our vision.
Creating a flourishing nursery of locally sourced seeds and plants.
Creating an environmental hub as a place of learning and participation.

The Central Otago environment is the hottest, coldest and driest place in New Zealand. Its dryland natural flora and fauna is distinctive and unique, but this biodiversity heritage has largely been displaced by the combined effects of fire, clearance for early pastoral farming, gold mining and rabbits. Many introduced plants have become weeds, able to out-compete native species for moisture and nutrients. Lowland native plant communities, especially, are now reduced to scattered individuals or small remnants restricted to the fringes of development, or persist in sheltered refuges. Some species have become uncommon, rare or completely absent. There is a widespread lack of awareness in Central Otago of our

biodiversity and the degree to which it is threatened.

The Haehaeata Natural Heritage Trust is a community response to this situation. The Trust works towards re-establishing viable and resilient ecosystems and habitats by engaging volunteers and community groups to propagate and plant local eco sourced native plants. We work with the community to increase awareness by having nursery volunteer sessions, workshops, and presentations at for example our AGM, International Biodiversity day, and U3A. We also create opportunities for educating our local school students with nursery visits, planting days, field work, and classroom visits. We encourage community groups to revegetate areas, and through success in these projects, we encourage more awareness and participation. We are responding to the need for community education.

We require further funding to continue to employ our fantastic Planting Project Co-ordinator/Administrator for the year beginning 1 June 2021. This position has been partially funded by a previous grant from the ORC. In the five months since the position was created the Trust has made excellent progress with Community outreach, future planting project planning, planting and monitoring work and Administrative organisation.

An example of the work this position has supported is our Future Restoration at Flat Top Hill Conservation Reserve. Completion of Stage 1 saw 500 Native trees planted in this area in autumn 2020. This project was undertaken in partnership with DOC with whom the Trust has a Management Agreement. The Project co-ordinator liaised with DOC, and with supporting organisations Trees that Count and Rotary, promoted the project in media, co-ordinated volunteers for planting and maintenance, and engaged Dunstan High school students to begin collecting statistics on site, monitoring the plants in the planting area.

This is just one example of the many projects the Trust is involved with. Having an employee in this position has made a huge difference to our ability to get projects underway. We have the plants growing in the Nursery, and we now are seeing our Vision beginning to be realised, with plants in the ground to support our local biodiversity.

This project, like all of our projects, is our response to the need to protect and enhance the threatened and vulnerable habitats and ecosystems in Central Otago.

**We fund both one-off projects and those running over multiple years. See terms and conditions for more detail.*

PROJECT DETAILS CONTINUED

Funding amount

Funds requested from ECO Fund (*Please note: all funds are GST exclusive)*:	10 hours per week: @ $30 per hour = 12 months
Total project costs:	$15,600
Funding allocation (breakdown of costs): *(see cost breakdown template)*	Wages We expect this contract to run for 1 year, with the possibility of renewal.
Have you applied for or received other funding for this project and what is the outcome of this?	Not this year. However last year we were successful with an application to the Sargood Bequest for the other 50 % of the funding required. We will be applying again to them for the 50% needed again for this application

How did you hear about the ECO Fund?

Word of Mouth

Declaration

I have read and agree to the terms and conditions and confirm that all information on this form is true and correct.

☒ Yes

Signature:	
Date:	16 October 2020

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Application for funding over $5,000.00

Please supply any supporting documents as part of your application, e.g. quotes, letters of support, project detail.

Once you have completed this application please email it to ecofund@orc.govt.nz or post to:

ECO Fund
Otago Regional Council
Private Bag 1954
Dunedin 9054

CONTACT DETAILS OF PERSON/ORGANISATION

First name:	Barbara
Last name:	Armstrong
Organisation:	Mōkihi Reforestation Trust
Postal Address	
Number/Street name/PO Box:	[redacted]
Suburb:	Cromwell
City:	
Region:	Central Otago
Postcode:	9310
Phone number:	[redacted]
Email address:	[redacted]

PROJECT DETAILS

Please provide a brief 1-2 sentence description of what your project is hoping to achieve and what funds requested are for. This will be used to promote your project on the ORC website and other communications.

We hope to continue with our Bannockburn Project which started with the reforestation of "waste land" in 2020. With over 600 grasses, shrubs and trees in ground and growing well, we hope to extend into Area 2 with this application. This would enable us to plant the beginnings of an insect and lichen sanctuary specifically protecting dryland species.

Mokihi Reforestation Trust - Bannockburn Project

PROJECT DETAILS CONTINUED

Project name:	Bannockburn Project The planting area is now known as Stuarts Ferry
Location of project:	From Pearsons Road/Bannockburn Road intersection to the Bannockburn Bridge, between road and Kawarau River
Project start date:	November, 2020
Project finish* date:	November, 202

Who is involved in the project? E.g. other community groups

Mokihi Reforestation Trust (123 members) with earlier support from Cromwell Community Trust, Central Otago Wilding Conifer Control Group, with current support from local businesses and individuals. Cromwell College students completing William Pike Challenge and Duke of Edinburgh, brownies and cubs also involved at Richards Beach mean they now attend community plantings at Bannockburn

How many volunteers are involved in the project?

From 20-40 is usual

How many volunteer hours are you expecting for this project?

Approximately 200 hours

How will you acknowledge the funding you receive from ORC?

Mail outs to members, Cromwell bulletin & News publicity, Central App stories

Is your organisation an unincorporated membership group, an incorporated society, a trust, a charitable trust, or none of these?

A charitable Trust, CC 57526. Registered 3/02/2020

Are you GST registered?

No

Please use the space below to describe your project, including:

1. How does the project involve or engage with the community?
2. Does the project protect the environment and what impact will this have?
3. Does the project enhance the environment and what impact will this have?
4. Does the project promote or educate others about the environment and what impact will this have?
5. Does the project align with ORC work programmes and what impact will it have on that work programme? E.g. water, climate change, urban development, biodiversity

Project description:

ENGAGING THE COMMUNITY

We invite the community to join our planting days from April to end October. Our mailing list has grown from under 100 at the start of the year to 123 currently). This year especially because of Covid-19 and also because we have a volunteer planter with a criminal record and cannot attend public days we have a mid week planting (no children or non-adults). Most weeks we plant or maintain a keystone site. This is a small group and varies from 2-4 people. We get winegrowers and workers and their casual staff attend too. We have a sign we put out on the main road and have gained about a dozen holidayers and travellers this season too. Cycle trails go through all our keystone areas including this one so we tell people to photograph our trailer sign and contact us too.

PROTECT THE ENVIRONMENT

As the existing ground cover was wilding pine, briar, introduced broom, thyme and lupin which has now gone, planting has taken place in most of Area 1. We have retained the existing lichen and Raouilia in Areas 2 and 3. We plant shrubs and trees and grasses that are ecosourced and belong here. We believe that the whole ecology is important and I am continually trying to improve my knowledge about local species. We now have consent

from LINZ to manage the whole area [areas 1, 2 and 3]. Our water connection going in shortly, irrigation hoses are currently going in we will be able to achieve a reasonable survival rate. We hope to create fernery for dryland ferns along with an insect, lizard and lichen sanctuary in this current Area 2. Our fencing application has been with LINZ for several months now.

I am very aware of the dismal state of our lepidoptera species (a recent DOC report) and we are planting regularly muhlenbeckia to support our copper butterfly population. The insect sanctuary would be a great place to introduce the rare chafer beetles at some stage too. Fenced areas would all include a gate for easy walking access.
Wind protection is a must and we put this in as we plant.

PROMOTE/EDUCATE OTHERS

Last weekend Mokihi RT held a field trip to Autaia Scenic Reserve for members and friends. This was taken by Kate Wardle a plant ecologist and about 9 people attended. It was Election Day so that was understandable. The object was so become more familiar with our dryland spring herbs and annuals.

Our sessions at Richards Beach in the past include students and pupils. We are expecting 80+ Year 7 pupils from Cromwell College in early November for a planting in our wetland area at Richards beach, and late November I am taking a Brownies planting with a small group of 10 girls. The cubs are promising to visit in March or April 2021. Education has been affected by Covid-19 with the schools not to keen to leave the classroom so we have been trying to increase the adult/member education and also the trustees. I have been walking with Dhana Pillai trying to increase my own knowledge, and have taken the opportunity to highlight one plant we are featuring at each planting day.

We have planted a range of Olearias and Coprosmas at Bannockburn and I am hopeful that we can label plants close to the car park as well.

PROJECT ALIGNMENT WITH ORC'S WORK PROGRAMMES

At Stuarts Ferry our planting ground will be a big improvement from crown-owned neglected land with a major $26 Million cycle way going through it. It will be transformed into an ecological haven enriching the biodiversity of the area.

I can see a huge difference in the biodiversity at Richards Beach this year compared to 2016 when I first joined MRT. We see skinks and geckos all the time now at Richards Beach. Last fortnight I was watering 15 shrubs at 45th Parallel South, and amazingly when I poured in the water seven shrubs had one or two skinks inside the cage. There was one gecko too. This will happen too at Stuarts Ferry. Our presence will also improve pest management because people are frequently there. I frequently see insects at Richards Beach and 45th Parallel.

Once our trees and shrubs grow we will increase bird populations too.

WATER QUALITY

Our plantings will be high above the river and will reduce sedimentation. We have already started adding gifted trees down the cliffside. We are also above the road. We have put in a number of grasses, toetoe and flaxes near the roadside to reduce run-off and will continue with this. We do not have a problem with flooding but as this is such as obvious and visible planting we are getting interest and support from vineyards and farmers in the district. Ata Mara Estate just north of Cromwell have gifted us over 80 kanuka seedlings and Fish and Game supplied 80 others. Some are already planted at Bannockburn. The Kawerau

WATER CONSERVATION

We always conserve water by using careful planting procedures. We create a depression for the plant which is supported by adding additional compost and sheep pellets. Then we mulch with stones sieved from the ground when we dig the hole. The stone mulch prevents weed growth to a degree and the stones also acts as an evaporation barrier in summer. The wind netting means that we provide some protection from the drying nw winds. When it rains the water runs into the depression and literally down to the roots.
Our irrigation will have a timer and is being set up by Blair Walter who has a huge experience in water at vineyards.

BIODIVERSITY

In our dryland area in the lichen and insect sanctuary we hope to create an area for tiny spring annuals that are becoming increasingly rare in Central Otago. All our plants in other also foster habitat, provide a food source or seed source for insects, birds and small animals. The insects pollinate our plants which will provide habitat for moths and butterflies. We will add to the existing Raouilia beds in Area 2 and with our own nursery we may be able to move into seed collection too from our own areas. This year I have provided Burn Cottage nursery with seed form some plants at Richards Beach. This coming year we can involve expert help now we have consent from LINZ.
We had quail on site, but I have not seen any since last summer.

URBAN DEVELOPMENT

The area is between Cromwell and Bannockburn and on the main road connecting the town and village. The cycle way passes through so it is a very public area. As the car park is extremely large many people congregate there for walks and bike rides and the location provides great publicity for our Trust. Every time I am there people stop and talk and admire our work. The locals at Bannockburn are very supportive of us and we have had two morning teas supported by The Black Rabbit Café and the Bannockburn Hotel.

We also had a barbecue to celebrate our 5000th plant which went in at Bannockburn.

CLIMATE CHANGE

As we find out more about carbon sinks we learn that undisturbed plantings are the best for the environment, and that grasses can accumulate a huge amount of carbon in the roots and ground. Shrubs and trees will cleanse the air for us and another 1000+ grasses, shrubs and trees will help our planet. Each new person that understands nature a little more by working with us creating this area becomes a climate control advocate. Every little bit helps.

This area will be an excellent showcase of sustainable planting created by a community of people working together.

**We fund both one-off projects and those running over multiple years. See terms and conditions for more detail.*

PROJECT DETAILS CONTINUED

Mokihi Reforestation Trust - Bannockburn Project 5.

Otago Regional Council

Funding amount

Funds requested from ECO Fund (*Please note: all funds are GST exclusive):*	
Total project costs:	**$5323.7**
Funding allocation (breakdown of costs): *(see cost breakdown template)*	**$2344.91 Plants** **$1594.51 Rabbit protection** **$253.87 Wind protection** **$1130.43 compost fertiliser & weed spray all areas** **$5323.7 TOTAL excl GST**
Have you applied for or received other funding for this project and what is the outcome of this?	We have an application in to LINZ for fencing.

How did you hear about the ECO Fund?

Mokihi has used ORC in the past at 45th Parallel.

Declaration

I have read and agree to the terms and conditions and confirm that all information on this form is true and correct.

☑ Yes

Signature: BS Armstrong

Date: 20 October 2020

Okokanui's "Neighbours"

Otago Regional Council

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Environment. Community. Otago.
Te Ao Turoa. Hapori. Ōtākou.

Application for funding over $5,000.00

Please supply any supporting documents as part of your application, e.g. quotes, letters of support, project detail.

Once you have completed this application please email it to ecofund@orc.govt.nz or post to:

ECO Fund
Otago Regional Council
Private Bag 1954
Dunedin 9054

CONTACT DETAILS OF PERSON/ORGANISATION

First name:	Caroline
Last name:	McCaw
Organisation:	Otago Polytechnic
Postal Address	
Number/Street name/PO Box:	[redacted]
Suburb:	
City:	Dunedin
Region:	Otago
Postcode:	9310
Phone number:	[redacted]
Email address:	

PROJECT DETAILS

Please provide a brief 1-2 sentence description of what your project is hoping to achieve and what funds requested are for. This will be used to promote your project on the ORC website and other communications.

'Neighbours' is a web-based game, created for Orokonui Ecosanctuary to educate local communities around safe engagement with their kākā flock. Stage 1 of this project was developed in 2019 by two postgraduate design students and we are seeking support for stage 2 – the realisation of this research into a playable game.

Okokanui's "Neighbours"

PROJECT DETAILS CONTINUED

Project name:	Orokonui's 'Neighbours'
Location of project:	Otago Polytechnic, Dunedin, New Zealand
Project start date:	February 1st 2021
Project finish* date:	Game launch by November 1st 2021

Who is involved in the project? E.g. other community groups

Otago Polytechnic, Orokonui Ecosanctuary, The Halo Project

How many volunteers are involved in the project?

16-20

How many volunteer hours are you expecting for this project?

800 hours. There has already been 1600 student hours invested to date.

How will you acknowledge the funding you receive from ORC?

There will be credit to partners involved on the website, and in all promotional material. ORC will be credited at the end of the game and on social media posts when released and promoted.

Is your organisation an unincorporated membership group, an incorporated society, a trust, a charitable trust, or none of these?

Tertiary Provider – Legal entity created by statute

Are you GST registered?

yes

Please use the space below to describe your project, including:

1. How does the project involve or engage with the community?
2. Does the project protect the environment and what impact will this have?
3. Does the project enhance the environment and what impact will this have?
4. Does the project promote or educate others about the environment and what impact will this have?
5. Does the project align with ORC work programmes and what impact will it have on that work programme? E.g. water, climate change, urban development, biodiversity

Project description:

We are seeking support for Orokonui's 'Neighbours' - Narrative Development & User-testing Project. Our goal is to engage Dunedin's community, specifically local communities around Orokonui Ecosanctuary and educate them about kākā conservation in their backyards. After conducting research in 2019, two postgraduate students identified an opportunity to present educational material through the development of a web-based game, in partnership with Orokonui, and seeking feedback form the Halo Project. Playable content was seen as able to reach a broader community than traditional print media or through spoken presentations. Games are engaging, involve prolonged attention and are able to demonstrate behaviours and actions, rather than simply telling what or how to change. Games are able to provide choice-based education, and help to develop empathy.
A prototype was developed by students, with initial testing. This application seeks funding for Stage 2 of the project: to work with Orokonui's current kākā promotion strategy and to finish the narrative development with industry support, and to user-test and refine the prototype in order to present it to Dunedin communities,

Basis of the game: Orokonui's kākā flock are leaving the sanctuary and are getting themselves into trouble, with a significant loss of birds. Orokonui's Neighbours is a web based game that aims to educate Dunedin's community around how to develop safe local environments and behaviours that are suitable for kākā. This involves backyard trapping, identifying known hazards and 'kākā proofing', not feeding kākā and understanding they are neither pets nor pests. Kākā are an indicator species for our environment. This means when kākā are thriving our ecosystem is doing well for a range of other species, including other

Okokanui's "Neighbours"

native birds. Through making choices players of the game learn about multiple risks to kākā and how they can mitigate these.

Our goal is to educate and promote proper interactions with kākā, that will enhance and protect our local environment. Our project meets the following criteria for the ORC Eco-fund:

1. The purpose of this project is to create awareness in communities about kākā conservation – including school communities – and promoting kākā friendly properties.
2. Throughout the project development we have regularly engaged with local organisations Orokonui Ecosanctuary, and The Halo Project to ensure correct messaging and appropriate information. We will seek regular community feedback – through The North East Valley Open Vue co-ordinator, schools and community organisations – throughout development in stage 2 of this project. We will engage in user-testing frequently, to make sure the messaging is appropriate and actionable. Our project relies on community engagement to be successful.
3. The main focus for this project is protecting Orokonui's kākā flock. By engaging the community through an interactive medium we can spread the message in an entertaining and educational direction. This project will hopefully lead to prevention of further kākā deaths. Educating people and influencing change in their behaviour ad urban environments will lead to creating a healthy and safe kākā flock outside of Orokonui sanctuary.
4. This project will bring attention to our local nearby rural and urban environments, enhancing, protecting and promoting what people can actively do to help kākā. With appropriate engagement and clear messaging this project will help enhance the environment for kākā.
5. Orokonui's 'Neighbours' aligns best with ORC's Biodiversity strategy. As kākā are an indicator species, they are useful for informing us about our local ecosystem and its support of biodiversity. We want to encourage habits and everyday changes people can do to help support biodiversity in their neighbourhood.

Background:

In 2019 two design honours students chose to partner with Orokonui in order to identify a problem that they could design a potential solution for. Georgia Ryan and Katherine Woodfield researched, conceptualised and designed two interactive outcomes based on southern kākā conservation. The aims of the project were to empower and educate local communities. Within a year, alongside extensive research to support their designs they prototyped a web-based game for Orokonui Ecosanctuary to use as an educational resource.

In their prototype 'Neighbours', the students developed an interactive story that educates the player through gameplay and problem solving about actions they can then use in their own backyard to help keep southern kākā safe. This choice-based gameplay empowers the player and allows them to make mistakes and learn from them. This application seeks partner funding to complete 'Neighbours' to the point where Orokonui could use it as an online resource.

Orokonui Ecosanctuary is an important place for both the Dunedin community and the national conservation community. Their information and support has been crucial to the project and this project will support their work informing local communities about kākā. 'Neighbours' was created to help inform and answer questions about kākā, allowing Orokonui to put their efforts towards other causes.

The project now requires support from an industry narrative designer and additional content followed by further user testing. With feedback and analysis from user testing we can make

changes and improvements to the gameplay and player understanding. Sound design, game play 'flow', and testing for effective messaging are key focuses of Stage 2. We estimate these improvements and user testing will take six months.

Otago Polytechnic is able to provide computer hardware and software, staff assistance and space. We are seeking additional funding for accessing professional advice from a narrative game design expert; setting up user testing events; renting one-off equipment, and payment for voice actors. By accessing the support of narrative designer Edwin McRae we can be assured that the project will meet industry standards Edwin McRae is working on a sequel to the recently funded 'Guardian Māia' narrative-based game and has the best experience to offer us. User-testing events will be conducted in systems employed by Dunedin games company Runaway Play. Matching industry approaches to game development with the aims of Orokonui and the Halo Project are both innovative and reliable, and we believe that **Orokonui's 'Neighbours' - Narrative Development & User-testing Project** offers ORC a unique way to support new approaches to community development around biodiversity.

**We fund both one-off projects and those running over multiple years. See terms and conditions for more detail.*

PROJECT DETAILS CONTINUED

Project description continue

Okokanui's "Neighbours"

Otago Regional Council

Funding amount

Funds requested from ECO Fund (*Please note: all funds are GST exclusive):*	$19,000
Total project costs:	**$39,100**
Funding allocation (breakdown of costs): *(see cost breakdown template)*	
Have you applied for or received other funding for this project and what is the outcome of this?	No (however Otago Polytechnic is committing $20,000 in kind)

How did you hear about the ECO Fund?

Through online research

Declaration

I have read and agree to the terms and conditions and confirm that all information on this form is true and correct.

X Yes

Signature:	
Date:	17 March 2020

Please find attached:

Letter of support from Amanda Symon - Orokonui

Sample artwork and screen shots from stage 1 of the game.

Otago Regional Council

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Te Ao Turoa. Hapori. Ōtākou.

Application for funding over $5,000.00

Please supply any supporting documents as part of your application, e.g. quotes, letters of support, project detail.

Once you have completed this application please email it to ecofund@orc.govt.nz or post to:

ECO Fund
Otago Regional Council
Private Bag 1954
Dunedin 9054

CONTACT DETAILS OF PERSON/ORGANISATION

First name:	Viktoria
Last name:	Kahui
Organisation:	Ōtokia Creek and Marsh Habitat Trust
Postal Address	
Number/Street name/PO Box:	[redacted]
Suburb:	Brighton
City:	Dunedin
Region:	Otago
Postcode:	9035
Phone number: [redacted]	[redacted]

PROJECT DETAILS

Please provide a brief 1-2 sentence description of what your project is hoping to achieve and what funds requested are for. This will be used to promote your project on the ORC website and other communications.

The Ōtokia Creek Marsh Restoration project aims to restore and protect the native habitat on the Lower Ōtokia Creek Marsh for the use and wellbeing of the Brighton community. Our goal is to foster long term engagement with the local school and community and to provide public access to the marsh catchment for walking, nature viewing and education.

PROJECT DETAILS CONTINUED

Project name:	Ōtokia Creek Marsh Restoration
Location of project:	Lower Ōtokia Creek Marsh in Brighton, Dunedin 9035
Project start date:	1 April 2021
Project finish* date:	1 April 2022

Who is involved in the project? E.g. other community groups

Big Rock Primary School (see support letter attached)
Saddle Hill Community Board (see support letter attached)

How many volunteers are involved in the project?

Approx.10-12 active volunteers (see Trust member ship list attached)

How many volunteer hours are you expecting for this project?

Approx. 1000 hours (including 2-3 public planting and 3-4 school education days)

How will you acknowledge the funding you receive from ORC?

Regular updates of project on the Brighton Ōtokia Trust Facebook site (https://www.facebook.com/Brighton-%C5%8Ctokia-Trust-104817771369650); Photos/articles about planting days: Saddle Hill Community Board Facebook; The Star (local newspaper); Otago Daily Times (see media coverage of Trust attached)

Is your organisation an unincorporated membership group, an incorporated society, a trust, a charitable trust, or none of these?

We have submitted our legal documents to register as a charitable trust: The Ōtokia Marsh and Habitat Trust (in the process of being registered)

Are you GST registered?

No

Please use the space below to describe your project, including:

1. How does the project involve or engage with the community?
2. Does the project protect the environment and what impact will this have?
3. Does the project enhance the environment and what impact will this have?
4. Does the project promote or educate others about the environment and what impact will this have?
5. Does the project align with ORC work programmes and what impact will it have on that work programme? E.g. water, climate change, urban development, biodiversity

Project description:

The Ōtokia Creek Marsh Restoration Project's vision is to protect and improve the natural, recreational, aesthetic and amenity values of the Ōtokia Creek catchment area, Brighton and surrounding areas, and to educate, inform and raise awareness about the need to protect the waters and wildlife of the Ōtokia Creek.

We hope this project is a first step in the development of a long-term partnership with the Otago Regional Council. The following describes the aims of the Ōtokia Creek Marsh Restoration Project:

1. The Trust has a very good relationship with the local **Big Rock Primary School**, and aims to engage individual school classes in the education of the restoration of the marsh at least 3-4 times a year, and more often as we will gain experience of how to involve children in a meaningful, safe and enjoyable way. We are working on ideas of engaging school children through experimental ethnoarcheology (i.e. traditional raranga harakeke, flax collecting and weaving, with the help of tangata whenua), and through nature viewing and education about plant, water and wildlife by Wildwood Ecoforestry (e.g. how to look out for flora species and collect their seeds).

   The Trust also has a very good relationship with the **Saddle Hill Community Board** and aims to engage the community in public planting days at least 2-3 times a year. The

Otokia Creek Marsh Restoration

Trust maintains a public Facebook site to raise awareness with regular updates, and responds to messages and inquiries by community members.

2. Some of the marsh habitat is already protected under QEII. The project aims to protect the marsh catchment in the ways detailed below. This will lead to compliance with the regulations set out under the National Policy Statement for Freshwater Management 2020.
    - Regular water quality monitoring (see photos of hydrology station on the Trust's Facebook site);
    - Education and engagement with landowners adjoining the marsh in the protection of the marsh (see Trust membership list attached);
    - Surveillance and monitoring of activities on the marsh by landowners (such as life stock infringement; illegal dumping; loose dogs attacking bird life; etc.)
    - Active predator trapping;
3. The project aims to restore native riparian vegetation in the Ōtokia Creek Marsh. This involves gorse clearing and planting of native flaxes, grasses and trees to allow for the enhancement of indigenous wildlife such as giant kokopu (*Galaxias argenteus*), longfin eel (*Anguilla dieffenbachii*), water fowl and black stilt/kaki (*Himantopus novaezelandiae*). The restoration of the marsh will also improve water quality of the creek, which feeds into the popular Brighton beach for swimming, surfing and surf live saving.
4. Every Sunday, a small group of volunteers have been meeting for small scale native planting on the marsh, of which photos and commentary have regularly been posted on the Brighton Ōtokia Trust Facebook site. We have over 60 followers, who are mainly local residents, and the number is growing. The project will allow us to promote and educate the Brighton and wider community in the following ways:
    - Photos and names of native plants and fauna;
    - Information about how to, where and what to plant;
    - Engagement and learning 'on the job' during casual and public planting days;
    - Education for school children by engaging them with the environment;
    - Raising awareness about the need to maintain and enhance water ways for water quality;
    - Provide public access to marsh habitat areas for walking, nature viewing and wellbeing of the Brighton community;
    - Raising awareness about the cultural significance of the Ōtokia environment, and the relevance of traditional practices of species conservation.
5. The project aligns with the following ORC work programmes:
    - **Water quality**: riparian planting on the marsh will improve water quality; the hydrology station allows us to develop a water quality monitoring system
    - **Biosecurity** (pest management): predator trapping and removal of gorse
    - **Biodiversity**: the Lower Ōtokia Creek Marsh is a mapped ecosystem (https://www.orc.govt.nz/managing-our-environment/water/wetlands-and-estuaries/dunedin-district/lower-otokia-creek-marsh)
    - **Climate change**: absorption and storage of CO2 by regeneration of marsh habitat biomass; marsh habitat is a type of wetland habitat that aids flood control during severe weather events
    - **Coastal/marine environments**: the Ōtokia Creek flows into the popular Brighton swimming beach; any improvements in water quality in the Creek will have a flow on effect to the coastal environment around Brighton

**We fund both one-off projects and those running over multiple years. See terms and conditions for more detail.*

Otokia Creek Marsh Restoration

PROJECT DETAILS CONTINUED

Funding amount

Funds requested from ECO Fund (*Please note: all funds are GST exclusive*):	$27,409
Total project costs:	$27,409
Funding allocation (breakdown of costs): *(see cost breakdown template)*	See breakdown of costs below
Have you applied for or received other funding for this project and what is the outcome of this?	The Trust has applied for and received $500 from the Saddle Hill Community Board in September 2020. No other funding has been applied for.

How did you hear about the ECO Fund?

Saddle Hill Community Board Facebook post

Declaration

I have read and agree to the terms and conditions and confirm that all information on this form is true and correct.

xYes

Signature:	
Date:	19 October 2020

Breakdown of costs:

Otokia Creek Marsh Restoration

Expense	Purpose	Cost $ (GST exclusive)
Ecological Restoration Plan by Wildlands (quote attached)	To provide a plan for the restoration of the Ōtokia Creek and Marsh Habitat	$3,109
Local nursery • **Tunnel house: 4m wide, 7.2m long** ($1000) • **Soil, mulch etc.** ($200) • **Labour cost for construction** ($50 per hour, 8 hours) (+ 8 volunteer hours)	To source local seed and grow native plants for restoration along the Ōtokia Creek	$1,600
Local nursery support by Wildwood Ecoforestry in Brighton • **Seed sourcing** • **Nursery maintenance** • **Planting** ($50 per hour, 5 hours per week, 46 weeks) (+ 4-6 volunteer hours per week)	To provide expertise and support for running the local nursery and help with planting	$11,500
Water quality measurement by Hydrology Services Otago in Brighton ($50 per hour, 2 hours per week, 46 weeks)	To monitor and assess water quality	$4,600
Purchase of native plants	To start restoration and native planting while the nursery is being established	$6,000
Purchase of predator traps (+ 2 volunteer hours per week checking the traps)	To protect the marsh wildlife from predators	$600
	Total:	$27,409

ECO Fund contribution	Applicant in-kind contribution	Applicant cash contribution	Other funding	Total project cost
$27,409	1000 volunteer hours	Fund raising and sale of surplus native plants	-	$27,409

Wanaka Shoreline Trapping Project - Stage 2

Amber Smith

From: JotForm <noreply@jotform.com>
Sent: Tuesday, 20 October 2020 10:36 p.m.
To: Eco Fund
Subject: Re: ECO Fund Application for funding OVER $5,000 UPDATED

Environmental Enhancement Fund

Name	Kris Vollebregt
Organisation	Wanaka Backyard Trapping
Address	Street Address: [redacted] City/Town: Albert Town Region: Other (Non US) Post Code: 9305
Phone Number	[redacted]
[redacted]	[redacted]
Please provide a brief 1-2 sentence description of what your project is hoping to achieve and what funds requested are for. This will be used to promote your project on the ORC website and other communications.	The Wanaka Shoreline Trapping Project will trap predators along the urban shores of Lake Wanaka township, with the vision of increasing the populations of NZ's endemic flora and fauna in the Upper Clutha area. Stage 2 will purchase, install and deploy traps targeting rats, stoats, ferrets, hedgehogs and possums, along 10km of the Lake Wanaka shoreline and tracks. Bird monitoring will assess population responses over time and tracking tunnel indices will guide trapping efforts; while data will be collated on the trap.nz website. All this work will be carried out by volunteers. The funding applied for will be used to purchase traps and materials,and iinstall and maintain the project for a period of 5 years. The project is in fact longer term, in line with Predator Free 2050 goals.
Project name	Wanaka Shoreline Trapping Project - Stage 2
Location of project	The Trapping project follows the Lake Wanaka shoreline and the Millennium Track from Waterfall Creek on the outskirts of Wanaka township in the east; to Glendhu Bay (the Aspiring View Carpark) in the west. The trapline will run along the popular walking biking Millennium Track.
Project start date:	01-02-2021
Project finish date	01-02-2026
Who is involved in the project, e.g. other community groups	Queenstown Lake District Council – own the land on which the project area is sited (over 600ha) and are very supportive of WBT. Matukituki Charitable Trust – manage the Matukituki

Wanaka Shoreline Trapping Project - Stage 2

	Catchment Animal Pest Control Project which maintains over 2000 traps from the alpine zones of the Mt Aspiring National Park to Glendhu Bay. Stage 2 of the Wanaka Shoreline Trapping Project will extend these efforts from Glendhu Bay along the Lake Wanaka shore, to the outskirts of Wanaka township. This will complete almost contiguous trapping of predators from deep in the Southern Alps to urban Wanaka. DOC Wanaka – very supportive of WBT Te Kakano Aotearoa Trust – native forest restoration in the Upper Clutha area for 13 years, and have planted numerous eco-sourced native plants in the Stage 2 project area. By trapping and restoring native habitat, Te Kakano and Wanaka Backyard Trapping are aiming to provide our local flora and fauna the best opportunities to survive and thrive. Southern Lakes Sanctuary – a consortium of trapping groups in the Wanaka-Wakatipu basins, of which WBT is a member. The SLS commissioned the Wildlands "Landscape Scale Predator Control" report of 2019
How many volunteers are involved in the project?	A Coordinator (maintaining roster, supplies, reports to WBT Committee monthly, oversees tracking tunnel programme); 12 x volunteers to clear traps (in pairs of 2); 4 x volunteers for running tracking tunnels surveys quarterly; 2 X volunteers for 5min Bird Count Surveys quarterly
How many volunteer hours are you expecting for this project?	To install and run the project in Year 1 will involve 410 hours of volunteer labour; to run the project thereafter will involve 320 volunteer hours per year – a total of 1690 volunteer hours over the 5 years.
How will you acknowledge the funding you receive from ORC?	Funding will be acknowledged through the use of the ORC ECO fund logo on the on-site Signage at key entrances to the Millennium Track; seen by many local, NZers and international visitors, as the track is high use, even with national borders closed as currently. WBT will also acknowledge the ECO Fund on our Facebook page on all correspondence, reports and documents regarding of the Project.
Is your organisation an unincorporated membership group, an incorporated society, a trust, a charitable trust or none of these?	Wanaka Backyard Trapping is an Incorporated Society with Charitable status
Project description	The purpose of Stage 2 of the project is to reduce the number of predators along the shores of lake Wanaka, from the edge of outskirts of the township, along the lakeshore, to join the trapping efforts of the MCT. This will complete a line of traps running from urban Wanaka almost contiguously up the Matukituki River

and it's branches to the alpine reaches of the Southern Alps deep in the Mt Aspiring National Park.

The goal is to maintain and enhance indigenous biodiversity, to increase populations and restore habitat for locally endemic fauna and flora, many of which have high National Endangered or At Risk Status. There is a wide variety of habitat in the project area, and bird life species alone ranges from freshwater birds (grey, black and white faced shag, coot), to lake and braided river birds (Crested grebe - Vulnerable status and sited in the Wildlands Report that would greatly benefit from lake shore trapping, Black billed gull - Critical, NZ Dotterel, Black Fronted Tern - Endangered, Pied Oyster Catcher - At Risk Declining), and to forest birds (Titipounamu Rifleman - At Risk Declining, Ruru Morepork, Tui, Bellbird, Kereru, Waxeye, Riroriro Grey Warbler, Karearea NZ Falcon - At Risk, amongst others). Locally endemic skinks and geckos occur globally only in the Upper Clutha area, with threatened status up to Nationally Endangered levels; invertebrates are also predated by these introduced pests. The need to protect the taonga living in our urban and peri-urban 'backyard' cannot be understated. These goals are directly aligned with the ORC Biodiversity Strategy and Action Plan 2019 and with the Predator Free 2050 initiative.

To achieve this goal we will reduce populations of introduced predators being rats, stoat, ferrets hedgehogs and possums. The project will deploy 100 x DOC200 traps at 100m spacing (for rats, stoats, ferrets and hedgehogs) and 10 x Trapinators (for possums), which will be checked and rebaited at least 18 times per year, by volunteers. Both these traps are NAWAC (humane) approved. The coordinator will maintain a roster and supplies, maintenance, reporting and liaison with the WBT committee. The MOU/Community Agreement with QLDC includes Health and Safety requirements for volunteers (see Operational Plan attached to this application)
Pest monitoring using tracking tunnels and Species (bird) monitoring will both be undertaken quarterly, to assess efficacy of methods employed. Data is collated on trap.nz.
Stage 2 is sited along iconic landscape enjoyed by kiwi and international visitors to the region. There is increasing awareness of the urgent need to protect what is unique and special to NZ; through the efforts of 'doing good' by protecting this taonga, spiritual and mental well-being is well served. The reassessment that many of the public have experienced throughout the COVID-19 lockdown periods, has aided this refocussing on life priorities and (national) identity.
WBT educates and raises the awareness of the local

Wanaka Shoreline Trapping Project - Stage 2

	community through attendance at local events (eg the annual ONE Summit), and hosting trap building workshops, and public displays. Promoting and educating the public on protecting NZ fauna increases well-being and sense of pride and connection to place. This encourages the public to get further involved whether through financially or voluntarily, in protecting what is special, in their 'backyard'.
Funds requested from ECO Fund (please note: all funds are GST exclusive)	14 432
Total project costs	56 682
Funding allocation (see cost breakdown template)	See Attached Cost Breakdown
Have you applied for or received other funding for this project, and what is the outcome of this?	WBT have recently applied to the World Wildlife Fund for Stage 1 of the WSTP; this stage of the project is located on the Wanaka shoreline where the Clutha Mata-au River begins
Please attach any supporting documents as part of your application, e.g. quotes, letters of support, project detail.	Agreement between QLDC and WBT 2 x Signed 9 Oct 20 incl Apx 1.docx Appendix 2 MAP Wanaka Shoreline Trapping Project Stage 2 Oct 2020.jpg Certificate of Incorporation WBT.pdf MAP Wanaka Shoreline Trapping Project Stage 2 Oct 2020.jpg MCT and Te Kakano Letters of Suport.docx Operational Plan WSTP Stage 2 October 2020.docx QLDC Support Letter Trapping WSTP for Stage 2 Oct 2020.pdf Quotes - Traps, Bait, A4 Signs, Tracking Oct 20.docx WBT Charity Status Confirmation Email.docx WSTP Cost Breakdown.docx
How did you hear about the ECO Fund?	Wanaka Backyard Trapping has applied and been successful in our application to the ECO fund on 2018 for the Mt Iron Trapping Project.
I have read and agree to the terms and conditions and confirm that all information on this form is true and correct	Yes

Kye Burn Freshwater Fish Management Plan

Otago Regional Council

ecofund

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Application for funding over $5,000.00

Please supply any supporting documents as part of your application, e.g. quotes, letters of support, project detail.

Once you have completed this application please email it to ecofund@orc.govt.nz or post to:

ECO Fund
Otago Regional Council
Private Bag 1954
Dunedin 9054

CONTACT DETAILS OF PERSON/ORGANISATION

First name:	Phil
Last name:	Smith
Organisation:	Kyeburn Catchment Ltd (KCL)
Postal Address	
Number/Street name/PO Box:	RD 2
Suburb:	Naseby
City:	Ranfurly
Region:	Otago
Postcode:	
Phone number: [redacted]	[redacted]

PROJECT DETAILS

Please provide a brief 1-2 sentence description of what your project is hoping to achieve and what funds requested are for. This will be used to promote your project on the ORC website and other communications.

This project is to scope and develop and a Central Otago roundhead galaxias management plan in the Kye Burn catchment. It is expected that the outcome of this work will be used to implement the management plan.

PROJECT DETAILS CONTINUED

Project name:	Kye Burn Freshwater Fish Management Plan
Location of project:	Kye Burn Catchment
Project start date:	November 2020
Project finish* date:	Feb 2021

Who is involved in the project? E.g. other community groups

Kai Tahu, Department of Conservation, Fish and Game Otago, Kyeburn Catchment Ltd.

How many volunteers are involved in the project?

The members of the KCL group (>10)

How many volunteer hours are you expecting for this project?

In the initial development of the plan <20hrs however if successful we expect significant volunteer hours.

How will you acknowledge the funding you receive from ORC?

All reports will include a thank-you and the report will be checked by ORC Science.

Is your organisation an unincorporated membership group, an incorporated society, a trust, a charitable trust, or none of these?

Company

Are you GST registered?

Yes

Please use the space below to describe your project, including:

1. How does the project involve or engage with the community?
2. Does the project protect the environment and what impact will this have?
3. Does the project enhance the environment and what impact will this have?
4. Does the project promote or educate others about the environment and what impact will this have?
5. Does the project align with ORC work programmes and what impact will it have on that work programme? E.g. water, climate change, urban development, biodiversity

Project description:

The Kye Burn Company Limited (KCL) has a Memorandum of Understanding (Mou) with the Department of Conservation, Otago Fish and Game, Te Rūnanga o Ōtākou and Kāti Huirapa Rūnaka ki Puketeraki . Subject to funding this MoU requires the KCL to develop and implement a Freshwater Fish Management Plan (FWFMP) for the Kye Burn. The catchment has populations of the threatened fish, Central Otago roundhead galaxias (*Galaxias anomalus*), and other native fish including the longfin eel/tuna (*Anguilla dieffenbachii*) an important customary harvest fish and a brown trout (Salmo trutta) sports fishery.

We expect the project will aid in significant engagement between the water users from the Kye Burn and the key stakeholder representative (Te Rūnanga o Ōtākou and Kāti Huirapa Rūnaka ki Puketeraki, DoC and F&G) as well as the ORC. We expect in the longer term that this project will be an excellent catalyst for engaging with the local schools and those in the community interested in freshwater biodiversity.

The management plan seeks to undertake management actions to improve the status of the threatened Central Otago roundhead galaxias and where it does not conflict with the threatened fish management improve the customary and sport fish resources.

The project will enhance the environment once fully implemented it has the potential to significantly improve Central Otago roundhead galaxias habitat and in particular secure populations from threats that may result in local extinctions.

KCL's expectation is that this project will successful thus allowing it to be promoted and used to educate the other on central Otago roundhead galaxias.

Our understanding that this work would align with ORC work programs on biodiversity, we would expect it would help accelerate positive outcomes. KCL is hopeful that ORC experts will be able to contribute to this project and continue the excellent working relationship between KCL and ORC.

**We fund both one-off projects and those running over multiple years. See terms and conditions for more detail.*

PROJECT DETAILS CONTINUED

Project description continued:

Kye Burn Freshwater Fish Management Plan

Otago Regional Council

Funding amount

Funds requested from ECO Fund (*Please note: all funds are GST exclusive)*:	
Total project costs:	$13,160
Funding allocation (breakdown of costs): *(see cost breakdown template)*	GIS setup with existing data - $720 Relevant data gathering - $840 Site visit and electric fishing (2 experts for 2 days) - $5,600 Draft Plan Development and review $2900. Consultation with representative of Kai Tahu, DoC, F&G, ORC and KCL. $3,100
Have you applied for or received other funding for this project and what is the outcome of this?	No

How did you hear about the ECO Fund?

ORC newsletters and website

Declaration

I have read and agree to the terms and conditions and confirm that all information on this form is true and correct.

✓Yes

Signature:	Phil Smith
Date:	19/10/2020

Silverstream Beautification Projects

Otago Regional Council

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Application for funding over $5,000.00

Please supply any supporting documents as part of your application, e.g. quotes, letters of support, project detail.

Once you have completed this application please email it to ecofund@orc.govt.nz or post to:

ECO Fund
Otago Regional Council
Private Bag 1954
Dunedin 9054

CONTACT DETAILS OF PERSON/ORGANISATION

First name:	John
Last name:	Van Delft
Organisation:	Rotary Club of Mosgiel
Postal Address	
Number/Street name/PO Box:	
Suburb:	
City:	Mosgiel
Region:	Otago
Postcode:	9024
Phone number:	[redacted]
Email address:	

PROJECT DETAILS

Please provide a brief 1-2 sentence description of what your project is hoping to achieve and what funds requested are for. This will be used to promote your project on the ORC website and other communications.

In conjunction with the Mosgiel Taieri Community Board, the Rotary Club is embarking on two Projects to Beautify the Banks of the Silverstream
Section One.
Wingatui Road to Gordon Road. A Project Group has already been established. Local communities and schools will be involved along with generous offers from local companies. The Project is at the design planning stage with final approval being obtained thru DCC before 31/10/20 in order for the plantings to be carried out. The Project is creating lots of community interest.

Silverstream Beautification Projects

Otago Regional Council

Section Two.
A Project Group has also been established for this section of the Silverstream. Ag Research has cleared an area of land on their boundary to the Silverstream from the Railway Line to Puddle at their own expense of approx. $20/25K. Thru their contractors they have constructed a cycle/walking track along this area. This area is now available for planting of trees along the new boundary deer fence that Ag Research has put in place.
In due course this part of the Silverstream Track will no doubt be utilised when the Cycle Trail from Dunedin to Mosgiel is completed.
Should the Projects not proceed then any Funding will be refunded.
See attached specific Reports on both Sections 1 and 2.

PROJECT DETAILS CONTINUED

Project name:	Silverstream Beautification Projects – Sections 1 and 2
Location of project:	Mosgiel
Project start date:	Late 20 early 21
Project finish* date:	Thru to July/Aug 21

Who is involved in the project? E.g. other community groups
Rotary Club of Mosgiel and Mosgiel Taieri Community Board. DCC and Taieri College will assist with the planning and planting. Other Community Groups and Schools have indicated support and assistance. Downers has offered their services.

How many volunteers are involved in the project?
Members of Rotary Club, Students from Taieri College and students from Polytech, other Schools, Staff from Downers, staff from Dunedin Airport

How many volunteer hours are you expecting for this project?
There have already been many many hours expended on the Projects from the Project Manager, Brian Peat, John van Delft from Rotary Club, John Brenkley DCC Parks and Reserves, Ag Research Farm Manager, Kevin Knowler and Teacher, Georgie King from Taieri College and her Students.

How will you acknowledge the funding you receive from ORC?
We have already had 3 press releases for the Community on the Taieri. There is no question that we will have press releases on a regular basis as the Projects commence. There is no question that we will acknowledge all donor of funds.

Is your organisation an unincorporated membership group, an incorporated society, a trust, a charitable trust, or none of these?
Incorporated Society. It is a Rotary Club of Mosgiel Trust

Are you GST registered? YES
Charitable Trust

Please use the space below to describe your project, including:

1. How does the project involve or engage with the community?
2. Does the project protect the environment and what impact will this have?
3. Does the project enhance the environment and what impact will this have?
4. Does the project promote or educate others about the environment and what impact will this have?
5. Does the project align with ORC work programmes and what impact will it have on that work programme? E.g. water, climate change, urban development, biodiversity

Silverstream Beautification Projects

Project description:
Firstly, please refer to the attachment which details the Projects.

1. As mentioned above these are joint Projects with Rotary Club of Mosgiel and Mosgiel Taieri Community Board. Project Groups have been established.
1. Taieri College has committed their students to assist with the design planning and planting as part of their study programme.
1. Downers Regional Manager has offered services and staff to the Projects.
1. CEO of Dunedin Airport has offered staff who are interested to assist with the planting.
2. Community Interest Groups have expressed interest in the Project.
3. The projects will enhance the banks of the Silverstream. At the moment the banks of the stream need beautification. All trees are native of NZ and will assist the banks potential erosion problems when their roots systems are established.
4. As mentioned, we are involving schools and community groups with the Projects.
5. In discussions with ORC staff they are pleased with the vision for the Projects. The plantings will have no impact of the stream itself because the trees will be planted no lower than 2/3 metres from the top of the banks.

Formal application with DCC has taken place for Section One. Section Two does not involve DCC for any approvals. ORC has been involved from the start of the Projects to present day.
The Silverstream is an integral part of the Taieri and these Projects will bring life to the banks of the stream in this area of Mosgiel.

We fund both one-off projects and those running over multiple years. See terms and conditions for more detail.

PROJECT DETAILS CONTINUED

Silverstream Beautification Projects

Otago Regional Council

Funding amount

Funds requested from ECO Fund (*Please note: all funds are GST exclusive*):	$20,000
Total project costs:	$20,000 (Future plantings will require further funding in due course.)
Funding allocation (breakdown of costs): *(see cost breakdown template)*	Sleeve Protectors for current trees (250 @ $6) $1,500 (Current Trees donated ($2500 approx) by Rotary Club and nurtured by Rotary Club) Sleeve Protectors for (1000 trees @ $6) $6,000 Pre Order 1000 Native Trees @ $10 per tree $10,000 Cost of trees/plants can vary from $7 to $15. Cost to arrange Community Meetings Marketing material for Community Info . $500/1000 (The intention is to allocate a further 250 trees/plants to Section One and approx. 750 trees/plants to Section Two.
Have you applied for or received other funding for this project and what is the outcome of this?	No applications to any organisation in the past. The Project has had consultation with ORC Engineering however DCC will need to approve the Project. A Bylaw will be required to be submitted to ORC for authority from ORC to undertake the plantings on the ORC flood bank. Mosgiel Rotary Club and Mosgiel Taieri Community Board support these Projects.

How did you hear about the ECO Fund?

ODT Newspaper and from ORC.

Declaration

I have read and agree to the terms and conditions and confirm that all information on this form is true and correct.

X Yes

Signature: [signature] President of Mosgiel Rotary

Date: 13/10/2020

Open Valley Urban Ecosanctuary (VUE)

Otago Regional Council

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Application for funding over $5,000.00

Please supply any supporting documents as part of your application, e.g. quotes, letters of support, project detail.

Once you have completed this application please email it to ecofund@orc.govt.nz or post to:

ECO Fund
Otago Regional Council
Private Bag 1954
Dunedin 9054

CONTACT DETAILS OF PERSON/ORGANISATION

First name:	Clare
Last name:	Cross
Organisation:	Open Valley Urban Ecosanctuary % The Valley Project
Postal Address	
Number/Street name/PO Box:	[redacted]
Suburb:	North East Valley
City:	Dunedin
Region:	Otago
Postcode:	9010
Phone number:	[redacted]
Email address:	[redacted]

PROJECT DETAILS

Please provide a brief 1-2 sentence description of what your project is hoping to achieve and what funds requested are for. This will be used to promote your project on the ORC website and other communications.

The vision of a thriving urban ecosanctuary in the Lindsay Creek Catchment and suburbs within, activated by engaged, informed community members. This programme sees households in our creek catchment taking wildlife-friendly actions as part of the 'Backyard Ecosanctuaries' programme - creating a habitat corridor for native wildlife, in particular kākā, dispersing from Orokonui Ecosanctuary into Dunedin.

PROJECT DETAILS CONTINUED

Project name:	Open Valley Urban Ecosanctuary (VUE) - “Backyard Ecosanctuaries”
Location of project:	Lindsay Creek Catchment area
Project start date:	January 2021
Project finish* date:	Ongoing

Who is involved in the project? E.g. other community groups

North East Valley, Normanby, Upper Junction, Ōpoho, Pine Hill, Dalmore and Liberton communities, The Valley Project, Orokonui Ecosanctuary, University of Otago, Predator Free Dunedin’s City Sanctuary Project.

How many volunteers are involved in the project?

We currently have 33 households (families) involved in backyard trapping (rats and possums), 8 volunteers involved in community trapping, 10-15 involved in community and backyard planting/weeding. We also have volunteers involved in our community events (which can fluctuate depending on the event). 10 volunteers at our monthly Steering group meetings. Many volunteers are involved across multiple mahi streams. We are expecting increased volunteer numbers and hours over the course of the year.

How many volunteer hours are you expecting for this project?

>2000

How will you acknowledge the funding you receive from ORC?

We will acknowledge the ECOfund in our local community newspaper (Valley Voice), a logo on our website, through social media, email newsletter and media releases and publications where applicable. We welcome further discussion about how we can collaborate to celebrate this project.

Is your organisation an unincorporated membership group, an incorporated society, a trust, a charitable trust, or none of these?

The Open VUE group is an unincorporated membership group, umbrellaed by The Valley Project (the contracting entity), which is an incorporated society with charitable status.

Are you GST registered?

Yes (The Valley Project is)

Please use the space below to describe your project, including:

1. How does the project involve or engage with the community?
2. Does the project protect the environment and what impact will this have?
3. Does the project enhance the environment and what impact will this have?
4. Does the project promote or educate others about the environment and what impact will this have?
5. Does the project align with ORC work programmes and what impact will it have on that work programme? E.g. water, climate change, urban development, biodiversity

Project description:

Open Valley Urban Ecosanctuary (VUE)

We are seeking investment into further development of the Open Valley Urban Ecosanctuary (VUE) project, our coordinated community led multi-year project that facilitates the establishment of the Lindsay Creek catchment area as a resilient open urban ecosanctuary. Through community engagement, we are enhancing the green and blue spaces in which indigenous species can thrive in our community and to become a corridor for these species, linking Orokonui Ecosanctuary and the Halo area to Dunedin city. As the scope of this vision is quite large, we have been promoting and engaging community members in the “Backyard Ecosanctuaries” Programme, bite-sized actions community members can take in their backyards and local community spaces that together, bring us towards this vision.

In collaboration with the Valley Project, Orokonui Ecosanctuary and the University of Otago, our community has united under the Open VUE project. The project has been developed in consultation with our local runaka. Initiated with support from Upoko David Ellison of Kati Huirapa Runaka ki Puketeraki, following his move north, additional runaka members have been instrumental in their support as kaumatua to this project.. Over the last year, we have also established a relationship with Predator Free Dunedin’s City Sanctuary Project to aid in engaging home owners in backyard trapping and are strengthening our ties with the Dunedin City Council. We have also developed relationships with a new cohort of Otago Polytechnic Design students who worked together throughout lockdown to complete marketing resources for the “Backyard Ecosanctuaries” Programme.

Open VUE have a strategic plan for developing the Lindsay Creek Catchment area as an urban environment that can support a greater diversity of indigenous species, and establish a safe and nourishing environment for these species, through community promotion, awareness and action. We are predominantly seeking funding for materials and staffing to facilitate and coordinate the Backyard Ecosanctuaries programme and Open VUE project, to continue to build upon the foundations we have laid in the last year.

Over the past year, through support from the 2019 round of the ORC ECOfund, Lotteries Environment and Heritage, Te Ao Tūroa: Dunedin’s Environment Strategy and Predator Free Dunedin’s City Sanctuary Project and Predator Free New Zealand we had plans in place to increase the reach of the programme. Due to the COVID-19 Pandemic, we have either moved some of our activities online and increased our online presence or hosted and attended events later in the year (please see our photo story for some of the images from these events). Due to the reduced capacity to hold and attend events, including working bees, we have had reduced attendance and capacity to promote events. Since the move to Alert Level 1, we have noticed a slow increase of volunteers engaging in our offline/in person activities. With the coming year, our plans to engage the community can only move from strength to strength, and remain resilient in the face of change. We have seen our community come together in many different ways throughout the past months - we are encouraged these connections will continue to grow and strengthen. Through advocating for the natural world in this way, we build resilience also in the face of climate change.

For the 2021 period, we propose to build upon our mahi from 2020 that aligns with our five main themes of biodiversity, water, land, people and pests (please see our attached strategic plan for a full breakdown of these themes). These activities include:

1. Biodiversity

a. Continue to promote the use of the inaturalist app as a Citizen Science data-collection tool, including during nation-wide events (e.g. Great Kererū count, City Nature Challenge). This information has been useful for us to understand species presence within our project area. Citizen Science data collection via inaturalist requires collation and promotion.
b. We will promote the use of the inaturalist app for Citizen Science data collection of invertebrates (indicator species) as part of a dedicated Citizen Science programme. This data will be invaluable. We need funding to support the coordination of this study in the community and with local schools.
c. Continue to host and facilitate community workshops that provide community members with information that enhances backyard biodiversity. We are already seeing senior community volunteers encourage their friends and whānau to be involved. This will require a paid coordinator, continued support to and from volunteers and to each household.
d. By engaging community members to improve biodiversity within their backyard and community spaces, we are supporting the efforts of Orokonui Ecosanctuary, the Halo Project and Predator Free Dunedin's City Sanctuary Project.

2. Land
   a. We have progressed a planting strategy for NEV, by completing an Agreed Working Arrangement with the Dunedin City Council for weeding, planting and trapping within Chingford Park. We are currently weeding a riparian zone, the "Riparian Rhapsody" to be prepared for bulk planting in 2021. Previously, we have hosted small weeding and planting efforts at this site. The volunteer "Weed Warrior" team has grown over this time. This strategy and coordination of volunteers requires a paid coordinator.
   b. Working with NEV Community Garden, we are currently propagating native plants from seed and seedlings that have been eco-sourced from local gardens in our own small propagation nursery that we have established. These plants will be made available to participating homes. Coordination of volunteers and materials for propagation requires a paid coordinator.
   c. With the DCC, we have a collection permit in place to collect seed and seedlings from Chingford Park to be propagated at our volunteer run propagation nursery. We need funding to support propagation materials and coordinate collection and propagation of seeds and seedlings.
   d. We will continue to host workshops and develop and promote resources to upskill community members on plant identification (native and weedy species). We will require funding to facilitate and coordinate these workshops and organise relevant skilled community members.
   e. We will continue to develop our collaborative relationship with the University of Otago Geography Department, to maintain a GIS map of the current participating households overlaid with socio-economic and biodiversity information, that allows visualisation of the network of biodiversity resources that can be linked throughout the valley. We need funding to support the collation of data for this map and feed this into trap.nz, inaturalist and mapping services provided by the City Sanctuary.
   f. Community Weed Warriors – we will continue to work with and grow our existing group of volunteers to remove target weed species in private (urban) and public spaces (to be replanted with natives to enhance native vegetation, where applicable) on a regular basis. We need funding to provide personal

protective equipment and to dispose of weeds appropriately. For non-toxic weeds, we have established a relationship with the local goat farmer, so weeds end up in the bellies of goats, rather than landfill.

g. As we are umbrellaed by The Valley Project, we are working closely to promote and provide nature exposure activities that engage community members in the natural world which can have benefits for mental and physical wellbeing as part of their Community COVID response Hub.

3. Pests
    a. We have developed a strategy for predator trapping with Predator Free Dunedin's City Sanctuary project by providing traps to the community at a bi-weekly Pop-up trap library as well as establishing a volunteer run trapline in Chingford Park. We need funding to manage and educate on the use of our traps at the Pop-up trap library, support volunteers to clear traps and the coordination of the relationship with the City Sanctuary team. We will also need funding for promotion.
    b. The pests theme also links to the Land theme through the management of pest species with our community "Weed Warriors".
4. Water:
    a. Support, enhance and celebrate the unique biodiversity and ecosystems of the Lindsay awa (creek) catchment to enhance, protect and raise awareness for overall ecosystem health.
    b. Funding here will support community creek exploration education and celebration, cleanups and data collation and collection required to assess our creek health and help our creek to support indigenous species. These events will also require promotion.
    c. Households involved that have the creek or tributaries running through or adjacent to their property will be encouraged to take actions that positively impact the waterways (see 5. People, below).
5. People
    a. Continued community promotion, information, education and action for environmental protection and enhancement through connections with individuals and events. This will occur through articles in the Valley Voice community newsletter, blog posts (northeastvalley.org/blog/categories/open-vue) , email newsletter, posts on our Facebook page (facebook.com/OpenValleyUrbanEcosanctuary) and group (facebook.com/groups/openvue) and webpage (northeastvalley.org/openvue) and will be aligned with the "Backyard Ecosanctuaries" programme.
    b. Continued social media, website and media development enables us to share stories, promote discussion and include community members that may have limited ability to be directly involved.
    c. Host and contribute to events that promote protection and enhancement of the environment. We currently have plans to work with Wild Dunedin, and Three Peaks Mountain Race and will plan workshops to upskill community members, specific to identified needs.
    d. We are working with the University of Otago to develop criteria based on biodiversity outcomes that can be used to give households "Garden Star" accreditation and declare households as a 'Backyard Ecosanctuary'. We need funding to facilitate feedback and connecting Garden Star with the community.

e. Involve houshouls by encouraging, educating and enabling householders to establish themselves as 'individual eco-sanctuaries' that elicits positive impacts on indigenous biodiversity with the aim to have one in ten households involved as a 'Backyard Ecosanctuary' over a three year period. The will require a paid coordinator.
f. We plan to continue to award letterbox stickers and certificates to each household that participates in wildlife friendly actions. New and existing households are collated into a database for further actions and evaluation throughout the project.
g. The initial householders will be asked to champion the project to recruit more backyards - and act as mentors to engage other interested people. We are currently seeing this happening.
h. Funding will enable us to coordinate sharing our knowledge. We believe collaboration is key, and sharing our methods and knowledge with other community groups is important and beneficial to us and to others.
i. Ongoing monitoring from staff and households will be built into the project plans, shaped on the data gathered in data collection through Citizen Science.

This project reflects a long term strategy developed and reviewed annually for NEV by members of its community, who are involved in the well-established Open VUE group. The vision of NEV as an ecosanctuary is a long term goal for the valley. By empowering community members with information and resources to achieve their goal, the project remains community owned. Furthermore, the Valley Project is well established in the community and well placed to carry the story and review outcomes into the future. The Open VUE steering group is represented by local volunteers. By building on the foundations laid in the last year, the biodiversity and wellbeing benefits will be secured for the long term. The programme is also maintained through ongoing work by Valley community groups targeted at each theme.

PROJECT DETAILS CONTINUED

Project description continued:

Open Valley Urban Ecosanctuary (VUE)

Otago Regional Council

Funding amount

Funds requested from ECO Fund (*Please note: all funds are GST exclusive*):	20,000
Total project costs:	**$92,673.36**
Funding allocation (breakdown of costs): *(see cost breakdown template)*	See attached budget
Have you applied for or received other funding for this project and what is the outcome of this?	For the 2021 period: Yes- Predator Free Dunedin's City Sanctuary Project All other funding sources are currently to be applied for (see attached budget)

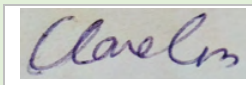
How did you hear about the ECO Fund?

Previous successful application.

Declaration

I have read and agree to the terms and conditions and confirm that all information on this form is true and correct.

✓ Yes

Signature:	
Date:	20/10/20

Tuatuku Restoration Project

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Application for funding over $5,000.00

Please supply any supporting documents as part of your application, e.g. quotes, letters of support, project detail.

Once you have completed this application please email it to ecofund@orc.govt.nz or post to:

ECO Fund
Otago Regional Council
Private Bag 1954
Dunedin 9054

CONTACT DETAILS OF PERSON/ORGANISATION

First name:	Francesca
Last name:	Cunninghame
Organisation:	Royal Forest & Bird Protection Society, Dunedin Branch

Postal Address

Number/Street name/PO Box:	[redacted]
Suburb:	
City:	Dunedin
Region:	
Postcode:	9010

Phone number: [redacted]	[redacted]

PROJECT DETAILS

Please provide a brief 1-2 sentence description of what your project is hoping to achieve and what funds requested are for. This will be used to promote your project on the ORC website and other communications.

The Tautuku Restoration Project, situated in the Fleming and Tautuku catchments in the Catlins, South Otago, aims to conduct effective introduced species control across native forest habitat for the benefit of native species, many of which are threatened. Concurrently we are determining which threatened native species still persist within the project area to be able to better protect them. Funds are requested to cover contractor time for trapping and track clearing, trap bait, pig control feeders, bait stations and trail cameras and VHF transmitters for native bird and bat monitoring.

PROJECT DETAILS CONTINUED

Project name:	Tautuku Restoration Project
Location of project:	Fleming and Tautuku Catchments, Catlins, South Otago
Project start date:	June 2016
Project finish* date:	Ongoing (this application is for activities conducted from Jan – Dec 2021)

Who is involved in the project? E.g. other community groups

Forest & Bird South Otago and Southland Branches, F&B Lenz Reserve Management Committee, Department of Conservation Murihiku, Papatowai Forest Heritage Trust, Papatowai Pest Project, Otago Corrections Facility

How many volunteers are involved in the project?

Minimum 32 annually (12 regulars)

How many volunteer hours are you expecting for this project?

Minimum 700 annually

How will you acknowledge the funding you receive from ORC?

Acknowledgement in all reports, presentations, media posts and publications

Is your organisation an unincorporated membership group, an incorporated society, a trust, a charitable trust, or none of these?

Incorporated society (# 221044) with charitable status (# CC26943)

Are you GST registered?

Yes

Please use the space below to describe your project, including:

1. How does the project involve or engage with the community?
2. Does the project protect the environment and what impact will this have?
3. Does the project enhance the environment and what impact will this have?
4. Does the project promote or educate others about the environment and what impact will this have?
5. Does the project align with ORC work programmes and what impact will it have on that work programme? E.g. water, climate change, urban development, biodiversity

Project description:

A landscape-scale project focussed on effective introduced predator control in the Fleming and Tautuku catchments (6600ha) for the benefit of native species, working in the F&B Lenz Reserve (550ha), and surrounding Public Conservation Land. This area is of recognised conservation significance representing the only watersheds on the SE coast with native forest cover from headwaters to sea, as well as fresh and salt water wetlands and old growth coastal podocarp forests, supporting many native threatened species. F&B initiated work in the Fleming catchment in 2016 with the concurrent aims to establish ground based introduced predator control and identify key threatened native species found at the site, with plans to increase the area under effective predator control to encompass a greater part of the Maclennan Range, including the Tautuku River catchment, as capacity and funding permit. To date a network of over 700 mustelid traps cover 1,900ha across the lower Fleming catchment and coastal Tautuku forest. The efficacy of this ground based predator control has been significantly increased following the inclusion of the Maclennan Range as a DOC Tia Kina ngā Manu site and the majority of the Project Area was treated with aerial broadcast 1080 in spring 2019. Monitoring work has identified the presence of two previously unknown threatened native species in the Project Area: A nationally significant population of the threatened non-migratory galaxid *Galaxias gollumoides* (At risk: Declining) in the upper Tautuku and Fleming rivers in addition to a significant deep forest population of the Tautuku forest gecko (*Mokopirirakau "southern forest"*) (Nationally Endangered). Additional records of rifleman, South Island fernbird, karearea, red and yellow-crowned kakariki, Australaisian bittern, little blue penguin, and long-tailed bat

distribution, and in some cases breeding, further demonstrate the conservation value of this lowland mixed podocarp forest. These findings have further increased awareness in the importance of the Maclennan Range forest habitat and the need to better protect the threatened extant native species within.

While significant gains have been made to date there is a need for increased site focussed introduced mammal control for the benefit of the most vulnerable threatened species including Tautuku forest gecko and long-tailed bat. Additionally the aims of the Project cannot be reached without effective red deer and feral pig control; both of these species are at high densities within the project area and cause significant damage to the forest.

The Project involves the community by directly working with people from diverse backgrounds. Over the past year over 30 individuals have been involved in volunteer work ranging from track clearing, trap checks, recreational hunting, gecko surveys, native bird counts, nest monitoring and nest box installation. Volunteers have included those who live locally within South Otago in addition to national and international visitors, ranging from school and university students through to retired. Additionally the Project runs a field trip for second year Southern Institute of Technology Environmental Management students and this summer will host a University of Otago Postgraduate Diploma in Wildlife Management student placement. Additionally inmates from the Otago Corrections Facility have provided hundreds of carefully made trap boxes.

This Project directly protects and enhances the environment in the area where we work. This is achieved through introduced predator control which removes predators from the ecosystem in addition to an increased understanding of the vulnerable native species that are still found within the area. This has enabled more intensive site focussed introduced predator control to be initiated, such as at the little blue penguin colony at Isas Creek. Being able to extend intensified predator control to sites where other key threatened species are located (Tautuku forest gecko, long-tailed bat) will increase our ability to better protect these species.

The Project's involvement with the community enables hands on environmental education with a wide range of people. For volunteers at a local level, many of whom have assisted with native species monitoring, this has increased their awareness and value in the native species found in their home area and assisted in prompting the establishment of the Papatowai Pest Project (a new community trapping group in the community that neighbours Tautuku), which only enhances the efficacy of landscape scale introduced predator control in the wider area. Additionally the recent involvement of tertiary students (from SIT and Otago University) has offered increased opportunity for the Project to promote the importance of native species conservation; we hope this will encourage students to pursue further studies and careers in conservation.

This Project aligns with three of the ORC work programmes and has a positive impact on them.

Water: The Fleming and Tautuku catchments are the only two rivers on the SE coast that retain native vegetation cover from their headwaters to the sea. Fish surveys conducted in 2017 revealed the upper rivers to be free from native trout and with high densities of threatened native fish species. Better controlling introduced deer and pigs, will enhance these ecologically significant waterways as high animal densities are causing increased sedimentation of the rivers.

Climate Change: Building resilience in native ecosystems in the face of climate change is an important conservation challenge. This project, by aiming to effectively control introduced predators across a large area of high quality forest habitat, is assisting with providing vulnerable native species with habitat, especially if predicated warming causes increased introduced species densities in southern latitudes. Additionally native forests under effective introduced predator control provide greater carbon sequestration than those without and our project works at a large enough scale for this to be significant.

Biodiversity: The principal alignment of this Project is with biodiversity. The work currently being undertaken by the Project is focussed on increasing biodiversity through the reduction of introduced species and the enhancement of native species, many of which are classified as threatened. We aim to have populations of native species effectively protected and thriving within the Tautuku Restoration Project Area, therefore having a tangible positive impact on the biodiversity work programme, where biodiversity within Otago is enhanced.

We fund both one-off projects and those running over multiple years. See terms and conditions for more detail.

PROJECT DETAILS CONTINUED

Funding amount

Funds requested from ECO Fund (*Please note: all funds are GST exclusive)*:	$32,899.30
Total project costs:	$81,899.30
Funding allocation (breakdown of costs): *(see cost breakdown template)*	

Expense	Purpose	Cost
6 x VHF transmitter (BD2)	To enable radio tracking of long-tailed bats in the Project Area and identify roost locations for site focussed intensified introduced predator control	$1416.71 (Note, quote attached in Canadian Dollars, conversion based on exchange rate on 19/10/20)
3 x Trail camera (A-900i)	To monitor feral pig movements and native bird nests (little blue penguin burrows)	$782.58
2 x NXT feeder distributor	Automatic grain feeder for feral pig control in lower Fleming Valley	$347.81
200 x KK bait station	Small light weight bait stations for intensified introduced predator control at priority sites for key native species (eg. Tautuku gecko, long-tailed bat)	$260 $25.00 (freight)
48kg rabbit meat + freight	Salted rabbit meat pieces for trap bait, 12 month supply for 4kg/month rebaiting. Freight $14.60 each delivery.	$672 (bait) $175.20 (freight)
640 hours track clearing contractors at $30/hr (working in pair for safety reasons)	Clear tree falls from existing trap lines, cut trap line link routes.	$19,200 ($9,600 per person)
334 hours trap line contractor	Check established trap lines, 700 traps, fortnightly for six months	$10,020

Tuatuku Restoration Project

Have you applied for or received other funding for this project and what is the outcome of this?	Yes, previously we have applied for and received funding from: DOC Community Fund: Dec 2017 to Dec 2020 has covered contractor trapper and DOC200 traps that form current network WWF Community Conservation Fund: Dec 2018 to Dec 2019 covered temporary track clearing contractor for trap line extension, trail cameras, trap bait, helicopter flight for installing traps to remote sites. F&B Grants for Nature Fund: 2017 - 18 covered wages for an experienced fresh water fish ecologist to conduct survey in Fleming and Tautuku rivers. Speights Fund: 2017 covered traps and trap box materials for first trap line extension up the lower Fleming River. Additional smaller donations have been received from individual donors for gecko surveys. All of these funds have contributed significantly to the Project advances to date.

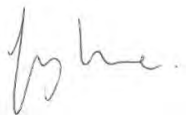
How did you hear about the ECO Fund?

Otago Daily Times and The Star newspapers, internet search.

Declaration

I have read and agree to the terms and conditions and confirm that all information on this form is true and correct.

☑Yes

Signature:	
Date:	20 October 2020

Otago Peninsula Native Riparian & Bush Revegetarian Project

Otago Regional Council

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Application for funding over $5,000.00

Please supply any supporting documents as part of your application, e.g. quotes, letters of support, project detail.

Once you have completed this application please email it to ecofund@orc.govt.nz or post to:

ECO Fund
Otago Regional Council
Private Bag 1954
Dunedin 9054

CONTACT DETAILS OF PERSON/ORGANISATION

First name:	Paula
Last name:	Cross
Organisation:	Otago Peninsula Catchment Group
Postal Address	
Number/Street name/PO Box:	[redacted]
City:	Dunedin
Region:	Otago
Postcode:	9077
Phone number:	[redacted]

PROJECT DETAILS

Please provide a brief 1-2 sentence description of what your project is hoping to achieve and what funds requested are for. This will be used to promote your project on the ORC website and other communications.

The **Otago Peninsula Catchment Group** is made up of land owners surrounding three significant catchments on the northern part of the Otago Peninsula.The three catchments include the Ōtākou streams, Papanui Inlet and Hoopers Inlet.

The long-term aim is to see an Otago Peninsula with large-scale protection and revegetation of fragile sites. This will improve the productivity of remaining prime grazing lands, deliver healthier waterways and estuaries, increase ecosystem biodiversity, and make rewarding improvements to the amenity of the landscape.

From the ECO fund we are requesting funding for a native riparian and restoration planting project within our larger identified area, in order to get our project started. This will support our long-term objectives and applications for larger funds e.g. Freshwater Improvement Fund, 1 Billion Trees.

PROJECT DETAILS CONTINUED

Project name:	Otago Peninsula Native Riparian & Bush Revegetation Project
Location of project:	Hoopers Inlet
Project start date:	March 2021
Project finish* date:	On-going, over multiple years

Who is involved in the project? E.g. other community groups

Otago Peninsula Catchment Group and the Otago Peninsula Trust

How many volunteers are involved in the project?

10

How many volunteer hours are you expecting for this project?

60

How will you acknowledge the funding you receive from ORC?

Local newsletters, future website, social media, and ODT article

Is your organisation an unincorporated membership group, an incorporated society, a trust, a charitable trust, or none of these?

A Charitable Trust

Are you GST registered?

Yes

Please use the space below to describe your project, including:

1. How does the project involve or engage with the community?
2. Does the project protect the environment and what impact will this have?
3. Does the project enhance the environment and what impact will this have?
4. Does the project promote or educate others about the environment and what impact will this have?
5. Does the project align with ORC work programmes and what impact will it have on that work programme? E.g. water, climate change, urban development, biodiversity

Project description:

Our vision is "Creating corridors through relationships". Corridors of bush running along streams between estuary and hills and joining up with remnant bush blocks. Designed well, this would also support the kereru return in numbers. It is also an opportunity to create relationships between large scale and small-scale lifestyle block owners, and between rural landowners and the Rūnanga in one collaborative project.

The Otago Peninsula Catchment Group's restoration and revegetation project compliments the work of the following Otago Peninsula land care groups.

- **Te Rūnanga o Ōtākou** kereru corridor project
- **The Otago Peninsula Biodiversity Group** who are working to remove all possums on the Peninsula, creating the way for our project to restore native habitat and encourage the return of birds, and protect the ecosystem health of our small waterways that run into the estuaries, ocean and harbour.
- **STOP** community group is undertaking planting projects between Portobello and Dunedin and has been doing these for many years as well as pest weed work and advocacy for protecting and enhancing important landscapes on the Otago Peninsula.
- In addition to the Kereru vision, Te Rūnanga o Ōtākou are currently developing a Mahika Kai Strategy that would eventually compliment this project and would include fresh water crayfish, pātiki & tuna as an example.

This project will both enhance and protect the environment. The planting of native plants is proposed alongside waterways, wetlands, estuary and harbour. It will establish corridors between newly planted areas and existing remnant native bush & proposed blocks of native bush establishment. We are working with Te Rūnanga o Ōtākou to identify how this project can support their Kereru corridor project and how we can work together. The Rūnanga have a vision to create corridors of bush between Portobello and the Headland to support Kereru returning to this area. The long-term vision is for a return of birdlife, improve the quality of water in the inlets and wetland areas, which in turn will benefit the ecosystems in this catchment.

We have a team of very knowledgeable people within our catchment group to help educate and plan the best native plants for the Otago Peninsula wetlands, estuaries and creek bed. As we become more established, we will look to expand our knowledge in seed gathering, seed propagation and cuttings of local native plants.
A long-term vision is to establish a community nursery to support this project as existing nurseries are struggling to meet demand.

The long-term benefit is the Otago Peninsula will have a larger scale of revegetation, improving the ecosystem health of our waterways and estuaries and improving biodiversity, bird and insect numbers. It will have the added benefit of visually telling the story to those in the future who see the bush, forest and wetland areas we have cared for and created.

This project will run over multiple years.

5. The project supports the ORC and their Biodiversity workplans 2017-2024 and aligns with the ORC Biodiversity Work Plans Visions and Outcomes.

   Vision and outcomes
   The strategy has an overarching vision that "Otago is the proud home of thriving ecosystems and rich biodiversity." It has five outcomes, some focused on indigenous biodiversity, and others on all biodiversity:
   1. All indigenous species and ecosystems are maintained.
   2. Threatened indigenous species and ecosystems are enhanced.
   3. People are aware and proud of Otago's biodiversity.
   4. Kai Tahu's role as kaitiaki is acknowledged and supported.
   5. Otago's biodiversity adds value to the regional economy.

ORC BIODIVERSITY ACTION PLAN 2019-24https://www.orc.govt.nz/media/7034/final-orc-biodiversity-action-plan-july-2019.pdf
pg 5

We have identified areas that have significant birdlife; herons, stilts, oyster catcher and spoon bill. Our desire is to protect these bird species and the eco-system is enhanced.
Hoopers Inlet is a very beautiful area and well liked by many bird lovers that visit.
Frequently I have seen people stopping and taking photos of the birds that live in the inlet and surrounding wetlands.
We wish for the Otago Peninsula to be further enhanced, as a home of thriving ecosystems and rich biodiversity.

**We fund both one-off projects and those running over multiple years. See terms and conditions for more detail.*

PROJECT DETAILS CONTINUED

Otago Peninsula Native Riparian & Bush Revegetarian Project

Funding amount

Funds requested from ECO Fund (*Please note: all funds are GST exclusive)*:	$36,345.00
Total project costs:	$38,345.00
Funding allocation (breakdown of costs): *(see cost breakdown template)*	
Have you applied for or received other funding for this project and what is the outcome of this?	We are applying for funding from the Kaimahi for Nature, 1 Billion Trees Partnership Fund and The Freshwater Improvement Fund. Still waiting to hear of outcome.

How did you hear about the ECO Fund?

Moira Parker

Declaration

I have read and agree to the terms and conditions and confirm that all information on this form is true and correct.

☐ Yes

Signature:	
Date:	

Otago Peninsula Native Riparian & Bush Revegetarian Project

go
ional
ncil

Moira Parker

Declaration
I have read and agree to the
information on this form is t

☑ **Yes**

Signature: Paula Cross

On behalf of the Otago Peninsula Catchment Group

Date: 20/10/2020

Otago Regional Council

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Application for funding over $5,000.00

Please supply any supporting documents as part of your application, e.g. quotes, letters of support, project detail.

Once you have completed this application please email it to ecofund@orc.govt.nz or post to:

ECO Fund
Otago Regional Council
Private Bag 1954
Dunedin 9054

CONTACT DETAILS OF PERSON/ORGANISATION

First name:	Helen
Last name:	Gibbs
Organisation:	Lawrence Gymkhana Club
Postal Address	
Number/Street name/PO Box:	[redacted]
Suburb:	
City:	Lawrence
Region:	Otago
Postcode:	9532
Phone number: [redacted]	[redacted]

PROJECT DETAILS

Please provide a brief 1-2 sentence description of what your project is hoping to achieve and what funds requested are for. This will be used to promote your project on the ORC website and other communications.

Fencing of native planting along Wetherston's creek at the Lawrence Gymkhana Grounds to protect and preserve the waterway and ensure that the community facility is safe for all to use.

PROJECT DETAILS CONTINUED

Project name:	Wetherston's Creek fencing project
Location of project:	Lawrence Gymkhana Grounds, Wetherstons Rd, Lawrence
Project start date:	Between 1 Nov & 1 Dec
Project finish* date:	15 January 2021

Who is involved in the project? E.g. other community groups

Gymkhana Club + other community grounds who make use of the grounds (Lawrence Lions Club, Cowboy Challenge Club, Rodeo Club, Car Club, Bike Club)

How many volunteers are involved in the project?

Minimum of 20-30

How many volunteer hours are you expecting for this project?

TBC

How will you acknowledge the funding you receive from ORC?

We will post a notice on our Facebook page and on our community page to let people know that the project was supported by ORC

Is your organisation an unincorporated membership group, an incorporated society, a trust, a charitable trust, or none of these?

Registered charity, unincorporated.

Are you GST registered?

No

Please use the space below to describe your project, including:

1. How does the project involve or engage with the community?
2. Does the project protect the environment and what impact will this have?
3. Does the project enhance the environment and what impact will this have?
4. Does the project promote or educate others about the environment and what impact will this have?
5. Does the project align with ORC work programmes and what impact will it have on that work programme? E.g. water, climate change, urban development, biodiversity

Project description:

1. How does the project involve or engage with the community?

Lawrence Gymkhana Club has been actively involved in the Lawrence community since the 1940s and has been the main developer of the Gymkhana Grounds - a large recreational facility that is accessed by a wide range of community groups and individuals.

In 2019-2020 Lawrence Gymkhana Club completed a large-scale project to build new ablution facilities at Lawrence Gymkhana Grounds. The building has male and female toilets and showers along with a social/meeting space with kitchen area and is a valuable asset for the local community. Our aim is to encourage both local and regional or national groups and organisations to host their events at the Gymkhana grounds, promoting social cohesion amongst our rural community and bringing visitors who can contribute to the economy and sustenance of our town.

This project will be carried out by volunteers from all of the clubs who are involved with the maintenance and ongoing development of our site and community facility. This includes members of Lawrence Lions, Lawrence Rodeo Club, Cowboy Challenge Club, Car Club, Bike Club and ¼ Mile Club. Our community are renowned for chipping so we are confident that there will be plenty of support to complete the project.

2. ***Does the project protect the environment and what impact will this have?***
3. ***Does the project enhance the environment and what impact will this have?***

Since completing the building the club has continued to develop the site by removing several old trees from the banks of Wetherston's Creek which runs through the grounds. This has improved the flow of the creek and reduced the risk of flooding. Native planting, kindly funded by The Lawrence-Tuapeka Community Board, has been carried out to enhance the aesthetic appeal and safety of the area. This will also protect and preserve the creek banks. We now need to ensure that the length of the creek is suitably fenced to stock proof both the creek and the new planting and to ensure the safety of visitors accessing the community facility for events and recreational activities.

4. ***Does the project promote or educate others about the environment and what impact will this have?***

This project does not directly promote or educate others about the environment but it has the potential to inspire others to carry out similar work on waterways that run through their sites. It will also be a great example of how community groups can pull together to protect and enhance the local environment.

5. ***Does the project align with ORC work programmes and what impact will it have on that work programme? E.g. water, climate change, urban development, biodiversity***

This project aligns with the ORC Biodiversity & Biosecurity programme, with particular reference to Service Statement 2: Collaborate with the regional community to potentially invest and fund ***environmental enhancement projects that deliver good environmental and social outcomes.*** It can also be aligned with ORC's focus on waterways and flood protection.

**We fund both one-off projects and those running over multiple years. See terms and conditions for more detail.*

PROJECT DETAILS CONTINUED

Project description continued:

Weatherston's Creek Fencing Project

Small section of creek planting at Lawrence Gymkhana Grounds

Example of community support and feedback

PROJECT DETAILS CONTINUED

Weatherston's Creek Fencing Project

Otago Regional Council

Funding amount

Funds requested from ECO Fund (*Please note: all funds are GST exclusive*): $10,000

Total project costs: $15,145

Funding allocation (breakdown of costs):

(see cost breakdown template)

ECO Fund contribution	Applicant in-kind contribution	Applicant cash contribution	Other funding	Total project cost
$10,000	All labour by volunteers	$5145		$15,145

Expense	Purpose	Cost $ (GST exclusive)
Fencing materials	Fence length of Wetherston's Creek at Lawrence Gymkhana Grounds	$15,145
	Total:	$15, 145

Have you applied for or received other funding for this project and what is the outcome of this?

No other funding applied for or received. We hope to raise the additional funding from lamb tailing working bees.

How did you hear about the ECO Fund?

Facebook ad I think

Declaration

I have read and agree to the terms and conditions and confirm that all information on this form is true and correct.

☑ Yes

Signature:

Date: 19 October 2020

Poolburn School GROW Space

Amber Smith

From: JotForm <noreply@jotform.com>
Sent: Monday, 19 October 2020 8:39 a.m.
To: Eco Fund
Subject: Re: ECO Fund Application for funding UNDER $5,000 UPDATED

Environmental Enhancement Fund

Name	Melissa Gare
Organisation	Poolburn School
Address	Street Address: [redacted] Street Address Line 2: RD 3 City/Town: Poolburn Region: Otago Post Code: 9387
Phone Number	[redacted]
[redacted]	[redacted]
Please provide a brief 1-2 sentence description of what your project is hoping to achieve and what funds requested are for. This will be used to promote your project on the ORC website and other communications.	Our big idea is we want to create an outside 'grow space' for our children to make an impact on our local environment. Creating this area will allow a school wide project of growing plants. The idea for this was inspired by our two class projects this year of creating and developing a wetland and skink habitat in our Poolburn community. At Poolburn school we want our learning to be hands-on and what we also love about this project is they also get dirty!!! We want to create our 'grow area' with a glass house, heated seed growing bed, potting table, shade house and vegetable planters.
Project name	Poolburn School GROW space
Location of project	We are Poolburn School, and we are the heart of the ruggard and spectacular Ida Valley. The Ida Valley is a strong generational farming area but also an area that is changing with the times, we have both the original sheep and beef farms, dairy farming and winter grazing. Throw into that mix a strong link to tourism through our beautiful scenery and the Central Otago Rail trail. Our school may only have 33 children, 3 teachers and a Principal but our school is so much bigger than that. Our school is the community, we hold community events and when we fundraise, families all over our valley are hugely supportive. We believe we are the BEST small school.
Project start date:	09-11-2020
Project finish date	08-10-2021

Poolburn School GROW Space

Who is involved in the project, e.g. other community groups	Projec2020 fair to say has been a rough year for everyone, but here at Poolburn school we have taken it in our stride and have been focused on taking our learning outside our school walls and learning with the experts within our community. We have two classrooms named after the local ranges Rough Ridge our senior classroom and Raggedy Range our junior. Both classes in 2020 have been working on projects around 'how we can impact our local community'. This has seen our Raggedy Range develop a school skink habitat and Rough Ridge developing a wetland. Both projects have had some common themes. But one theme has stood out and showed a great interest was growing plants. Hence the need for a grow space at our school. Our parents and greater community have been so supportive of our skink habitat and wetland developments projects and we know developing a grow area will be no different. We are lucky to have made strong connections with the enviro schools advisor and railhead eco nursery who will be very helpful in continuing this journey.
Is your organisation an unincorporated membership group, an incorporated society, a trust, a charitable trust, or none of these?	School
Are you GST registered?	Yes
Project description	The 'grow space' would be in a space on the back of our playground and in the perfect world have a glass house, shade house, work table and raised gardens. We would like to put power and water into our glass house so we can have a heated bed for our seedlings and the children want to create a watering system that they saw at another nursery where it waters when the plants need it. This would be a long term project where our children can be engaged through the process from seeds to grow native plants and vegetables and give back to our community. The wetland project we are involved in is going to be a longitudinal project in which we will need a lot of plants. The project is based on one of our school families farm. Where we are making a positive impact on the environment by creating a wetland on an otherwise unused farm land. The children have been involved in planning the wetland.Through all our planning and research and talking to local experts we quickly realised the amount of native plants we needed. The growing of vegetables is something we would also like to link to paying forward to our local community but also making food at school for lunches.

Poolburn School GROW Space

	This project we believe will grow our children's minds and create another strong connection to our environment. Also embed very important life skills. The fund will mean we could get all of our ideas into fruition for our 'grow area' and we can start making another real impact to our local environment and community. We identify that the ORC would also be keen on our wetland development as it will be improving the filtering of the water and create more opportunity for fish and wildlife. The children really are pumped from our two projects to genuinely improve our environment.The money we are asking for from the fund is mainly for materials as our parents and community members are keen to be the labourers. They want to see our 'grow area' come into fruition as much as us.The exception is the plumbing and electrical work needed to get water and power to the grow site. We are so excited about what this GROW project will do for our greater Poolburn environment as it protects, enhances and promotes our environment through the growing of plants and vegetables. With our skink habitat and wetland development we are creating lifelong change.
Funds requested from ECO Fund (please note: all funds are GST exclusive)	$5000.00
Total project costs	$9000.00
Funding allocation (see cost breakdown template)	1x kit-set Glass House- $3000.00 Power to glass house $400.00 Water to glass house $400.00 Seed bed table $100.00 Heated mat $100.00 Seed trays $100.00 Pots- $200.00 2x Planter boxes- $400.00 1x Shade house- $300.00
Have you applied for, or recieved, other funding, for this project and what is the outcome of this?	No
How did you hear about the ECO Fund?	From another teacher
I have read and agree to the terms and conditions and confirm that all information on this form is true and correct	Yes

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Application for funding over $5,000.00

Please supply any supporting documents as part of your application, e.g. quotes, letters of support, project detail.

Once you have completed this application please email it to ecofund@orc.govt.nz or post to:

ECO Fund
Otago Regional Council
Private Bag 1954
Dunedin 9054

CONTACT DETAILS OF PERSON/ORGANISATION

First name:	Geoff
Last name:	Hughes
Organisation:	Routeburn Dart Wildlife Trust
Postal Address	
Number/Street name/PO Box:	[redacted]
Suburb:	
City:	Queenstown
Region:	Otago
Postcode:	9348
Phone number:	[redacted]
Email address:	[redacted]

PROJECT DETAILS

Please provide a brief 1-2 sentence description of what your project is hoping to achieve and what funds requested are for. This will be used to promote your project on the ORC website and other communications.

We want to humanely trap and feral cats. Following a successful pilot project in 2019 – 20, we now want to run the project annually. The funds will pay for the ranger's time and rental of the traps, the latter using satellite and mobile phones technology and so use the ranger's time efficiently.

Routeburn Dart Wildlife Trust - Feral Cat Trapping

PROJECT DETAILS CONTINUED

Project name:	Feral cat trapping
Location of project:	Rees River, north of Glenorchy
Project start date:	February/March 2021 – repeated annually
Project finish* date:	March/April 2021 – repeated annually

Who is involved in the project? E.g. other community groups

Routeburn Dart Wildlife Trust; Forest and Bird (Central Otago Lakes Branch)

How many volunteers are involved in the project?

Five

How many volunteer hours are you expecting for this project?

80 hours

How will you acknowledge the funding you receive from ORC?

On our website and in our newsletter

Is your organisation an unincorporated membership group, an incorporated society, a trust, a charitable trust, or none of these?

Charitable Trust

Are you GST registered?

Yes

Please use the space below to describe your project, including:

1. How does the project involve or engage with the community?
2. Does the project protect the environment and what impact will this have?
3. Does the project enhance the environment and what impact will this have?
4. Does the project promote or educate others about the environment and what impact will this have?
5. Does the project align with ORC work programmes and what impact will it have on that work programme? E.g. water, climate change, urban development, biodiversity

Project description:

Feral cats are a non-native predator that attack the nests of native birds, eating the eggs and killing the chicks. They do not have the same public profile as stoats, rats and possums. The traditional way to catch and dispose of feral cats is with leg-hold traps that hold the animal in a humane way until the ranger can get to the trap to kill them. The traps are placed and set for a few weeks only; late summer / early autumn is a good time. This method however, is time consuming and inefficient, as the ranger needs to check all the traps every day with no knowledge of any cats having been caught; the traps may be empty.

We have successfully piloted a new method to trap the animals that uses satellite technology and mobile phones. When a trap is triggered by an animal entering it, a signal is sent to an antenna placed nearby. This sends a signal to a satellite that then sends a signal to the ranger's phone. The ranger can then go directly to the relevant trap and kill the animal.

Our pilot project was funded with a grant from the World Wildlife Fund, was set in an area by the Rees River north of Glenorchy and was done in collaboration with a local branch of Forest and Bird. It ran from 28 November 2019 to 30 May 2020 in three separate stints. We caught 31 cats and 31 possums. May was the most successful month for trapping, 22 cats in 22 days. The technology worked well. This method was twice as efficient as the traditional method of trapping and half as expensive, $10,095 compared to $20,885. Rabbit and possum were good for bait. The traps are owned by Forest and Bird and we rented them for the pilot period.

A similar pilot was successfully completedby Forest and Bird in the Matukituki valley just before our own pilot. I enclose the report from it and also the original project proposal that outlines its technical aspects.

Routeburn Dart Wildlife Trust - Feral Cat Trapping

The specifics of what we want to do annually are:

1. Rent traps from Forest and Bird for two months a year – in late summer / early autumn.
2. Place the traps near the Rees River north of Glenorchy.
3. Install the antennae.
4. Contract our ranger to do this, supported by five volunteers.
5. Trap checking for the two months will be done by our ranger supported by volunteers.
6. Remove the antennae and traps at the end of the project and return them to Forest and Bird.
7. Record the catch data during the project.
8. Repeat annually.

In response to the specific questions about our project listed above:

1. Our trust has a good profile with the local community in and around the head of Lake Wakatipu and in Queenstown. Many of our current volunteers live there, as do some of our trustees. We receive funds from time to time from the Glenorchy Community Trust and Association as well as donations from local landowners and private individuals. We are immersed in the community. We already run several predator trapping projects in the area.
2. Predator control is work that we are already committed to, aiming to protect native bird species and maintain/enhance biodiversity. Feral cat trapping is an extension of this and has the same ultimate goal – to protect native birds and maintain/enhance biodiversity.
3. The project will enhance the environment by protecting native bird species and maintaining biodiversity.
4. One of our roles as a trust is to educate the local community and engage them in conservation work; we are successful at this. Many local residents in and around Glenorchy support the trust by cash donations or by volunteering on our existing trapping projects. Before Covid-19, we also educated international and domestic tourists who visited the area. We will continue to educate domestic tourists. All of this has a positive impact. We know this from feedback received.
5. We think it does align with an existing ORC work programme – the strengthening and maintaining biodiversity.

Our annual budget for the project is based on the actual costs of the pilot project and include the ranger's contracted time, bait and costs to install and rent the traps from Forest and Bird for two months plus the costs of satellite time.

Attached with my application are the following:

1. Budget cost breakdown template
2. Original outline of the project – that outlines how the technology works
3. Report of a pilot project from the Matukituki valley
4. Report from our ranger of our pilot project
5. Invoice from our ranger for the pilot – this is the basis for our annual budget

**We fund both one-off projects and those running over multiple years. See terms and conditions for more detail.*

PROJECT DETAILS CONTINUED

Funding amount

Funds requested from ECO Fund (*Please note: all funds are GST exclusive*):	$10,000.00
Total project costs:	$13,000.00
Funding allocation (breakdown of costs): *(see cost breakdown template)*	See separate completed template.
Have you applied for or received other funding for this project and what is the outcome of this?	We received funding for our pilot project in 2019-20 from the World Wildlife Fund. Our interim and final reports (with budget details) were accepted and signed off several months ago.

How did you hear about the ECO Fund?

Previous applications and newsletters

Declaration

I have read and agree to the terms and conditions and confirm that all information on this form is true and correct.

Yes

Signature:	Geoff Hughes Executive Officer Routeburn Dart Wildlife Trust
Date:	

Smiths Creek Catchment Enhancement

Otago Regional Council

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Application for funding over $5,000.00

Please supply any supporting documents as part of your application, e.g. quotes, letters of support, project detail.

Once you have completed this application please email it to ecofund@orc.govt.nz or post to:

ECO Fund
Otago Regional Council
Private Bag 1954
Dunedin 9054

CONTACT DETAILS OF PERSON/ORGANISATION

First name:	Lala
Last name:	Frazer
Organisation:	Save The Otago Peninsula (STOP) Inc Soc
Postal Address	
Number/Street name/PO Box:	[redacted]
Suburb:	Broad Bay
City:	Dunedin
Region:	Otago
Postcode:	9014
Phone number: [redacted]	[redacted]

PROJECT DETAILS

Please provide a brief 1-2 sentence description of what your project is hoping to achieve and what funds requested are for. This will be used to promote your project on the ORC website and other communications.

Funds are requested to fence two further riparian strips (a complete tributary and an extension alongside the main creek) of the Smiths Creek Catchment so that planting can take place to reduce erosion and enhance the habitat of native fish, (including eels) and various crustacea. Fencing will allow extension of the planting programme for a further either two to three years (depending on whether fencing funds for both areas are approved).

PROJECT DETAILS CONTINUED

Project name:	Smiths Creek Catchment Enhancement
Location of project:	Smiths Creek (Hereweka Harbour Cone Block)
Project start date:	January 2021
Project finish* date:	April 2021

Who is involved in the project? E.g. other community groups

Broad Bay School, local residents,

How many volunteers are involved in the project?

427 (86 individuals and 361 in groups)

How many volunteer hours are you expecting for this project?

3,898.5 hours (based on 12 months last financial year)

How will you acknowledge the funding you receive from ORC?

In all the three local newsletters, any media publicity gained

Is your organisation an unincorporated membership group, an incorporated society, a trust, a charitable trust, or none of these?

Incorporated society

Are you GST registered?

No

Please use the space below to describe your project, including:

1. How does the project involve or engage with the community?
2. Does the project protect the environment and what impact will this have?
3. Does the project enhance the environment and what impact will this have?
4. Does the project promote or educate others about the environment and what impact will this have?
5. Does the project align with ORC work programmes and what impact will it have on that work programme? E.g. water, climate change, urban development, biodiversity

Project description:

This is a long term project which was started in 2013, with 4 areas along the sides of the main creek and into the side tributaries being gradually fenced and then revegetated. A Management Plan has been prepared. The project costing is for the 2021 period.

This is one of the few creeks emptying into the Harbour which still has whitebait exchange. This project has raised awareness of eels and native freshwater fish needing to spend part of their life in fresh water and part in saltwater. The nearest bus stop is now decorated with a mural of these fish.

The land is owned by the Dunedin City Council but managed by the Hereweka Harbour Cone Management Trust who in turn have a Memorandum of Understanding with Save The Otago Peninsula (STOP) Inc Soc to fence off areas and carry out revegetation in both the Smiths Creek and the Stewarts Creek catchments on either side of the divide. (See attached letters approving applications such as this.)

Currently there are two working bees a week every Tuesday and Sunday attended mostly by locals who do the planting, the subsequent releasing for approximately 3 years, the removal of pest plants and encouragement of natural revegetation where bush remnants remain, as well as building and maintaining tracks, boardwalks and bridges for access and to encourage recreational use. Amongst the volunteers in the Tuesday group are a number of retired people who are stroke survivors, heart attack survivors or have had hip replacements, and/or knee replacements.

The local Broad Bay School has been involved since the beginning, growing seedlings, and planting and maintaining them as well as monitoring their growth and the health of the stream. Groups from other schools, various groups of University students, and Polytechnic students, specialist species groups, church groups and youth groups assist with planting and releasing on an occasional basis, and are invaluable.

Smiths Creek Catchment Enhancement

Walkers, including those with dogs, are encouraged to walk through the “Future Forest” and a large educational sign explains the purpose of the planting.

Individuals sponsor plants to commemorate births, deaths, weddings, citizenship or as their contribution for climate change action. Organisations and local companies this year, as part of their aim to offset their carbon use, financed 1,500 of the 1,800 eco-sourced plants purchased from five local native nurseries. We expect to continue to seek funding from a range of donors to pay for this aspect of the project. The agent for the Government’s Billion Trees project has already visited and assured us that the area meets their criteria for funding. When quoting for the cost of a tree we include the cost of the fertiliser tablet, a protector, a stake, pins for the weedmats & cages, and species labels as well as the preparatory and maintenance herbicide (if required).

Species vary according to whether they are planted in ephemeral wetlands, or on steep stony slopes to aid erosion control, or to provide an extension of neighbouring reptile habitat. Each seedling when planted is not only numbered, but also has a species identifier label with the scientific name, the common name and the Maori name, to increase the botanical knowledge of volunteers and assist with monitoring. Our aim for all areas is >90% survival rate, and it is generally between 95 and 98%.

Volunteers demonstrate a keen observation of insects – especially spiders and stick insects – and this week we were excited to find peripatus for the first time on the edge of the current planting.

As a freshwater catchment enhancement project, with extensive planting and which includes control of plants that adversely affect biodiversity, it aligns well with ORC work programmes on water, climate change and biodiversity.

Unfortunately rural contractors are so busy at the moment that we have not been able to get any to come out and quote for this project. They are reluctant to even give an estimate when they become aware that some of the terrain is steep and stony and access for materials could be difficult on some stretches, although the fencing is straightforward on one long stretch with easy access. For that reason we have attached an earlier quote for a similar area and estimated the cost for this project based on that quote. The start and finish dates above are only for the fencing and **not** the total project.

It had been hoped to fence these areas in early 2020, but unfortunately, the Speights Environmental Fund, which had funded previous fencing, moved over to Million Metres Stream, which funds only planting and not fencing. As a consequence, in 2020 we were forced to plant on slopes within an already fenced tributary where natural regeneration, spreading out from existing bush remnants, had been planned. We are keen therefore to gain assured funding for the fencing before the 2021 planting season.

**We fund both one-off projects and those running over multiple years. See terms and conditions for more detail.*

Smiths Creek Catchment Enhancement

Funding amount

Funds requested from ECO Fund (*Please note: all funds are GST exclusive)*:	$27,011.31
Total project costs:	$190,444.34
Funding allocation (breakdown of costs): *(see cost breakdown template)*	***See attached cost breakdown template***
Have you applied for or received other funding for this project and what is the outcome of this?	$5,000 (their maximum) approved from Dunedin City Council's Biodiversity Fund Up to $5,000 from the Hereweka Harbour Cone Trust to cover GST on that and this application if successful (GST = $5,145) Herbicide grant from Otago Peninsula Community Board part of which will be used in this area, over the next three years. We have also applied to the Ministry for the Environment Freshwater Improvement Fund (Shovel ready, Jobs For Nature Fund) but that is highly unlikely to be successful because despite there having been two rainstorm events in memory that have flooded the property downstream, and closed the road, this is not listed as a nationally vulnerable catchment. The result will be known in November.

How did you hear about the ECO Fund?

We have applied to the fund previously for Pest Plant Control projects, and have been involved in the Pest Control Policy and the Biodiversity Policy discussions over the last few years.

Declaration

I have read and agree to the terms and conditions and confirm that all information on this form is true and correct.

☐ Yes

Signature:

Date: 19.10.20

Blue Lake and Upper Walking Track Enhancement

Otago Regional Council

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Application for funding over $5,000.00

Please supply any supporting documents as part of your application, e.g. quotes, letters of support, project detail.

Once you have completed this application please email it to ecofund@orc.govt.nz or post to:

ECO Fund
Otago Regional Council
Private Bag 1954
Dunedin 9054

CONTACT DETAILS OF PERSON/ORGANISATION

First name:	Helena
Last name:	Raymond
Organisation:	St Bathans Area
Postal Address	
Number/Street name/PO Box:	[redacted]
Suburb:	[redacted]
City:	Oturehua
Region:	Central Otago
Postcode:	9386
Phone number: [redacted]	[redacted]

PROJECT DETAILS

Please provide a brief 1-2 sentence description of what your project is hoping to achieve and what funds requested are for. This will be used to promote your project on the ORC website and other communications.

The St Bathans Area Community Association would like funding to enhance the amenity areas in and around the Blue Lake areas of St Bathans, including the Upper Walking Track Entrance.
This would mean adding in suitable seating such as picnic tables, planting of shelter trees and landscaping, and information signs

PROJECT DETAILS CONTINUED

Project name:	Blue Lake and Upper Walking Track Enhancement Project
Location of project:	St Bathans Blue Lake Reserve
Project start date:	October 2020
Project finish* date:	March 2021

Who is involved in the project? E.g. other community groups

St Bathans Community

How many volunteers are involved in the project?

12-15

How many volunteer hours are you expecting for this project?

10

How will you acknowledge the funding you receive from ORC?

On Signage, social media and local newsletters

Is your organisation an unincorporated membership group, an incorporated society, a trust, a charitable trust, or none of these?

incorporated society, registered with the charities commission

Are you GST registered?

yes

Please use the space below to describe your project, including:

1. How does the project involve or engage with the community?
2. Does the project protect the environment and what impact will this have?
3. Does the project enhance the environment and what impact will this have?
4. Does the project promote or educate others about the environment and what impact will this have?
5. Does the project align with ORC work programmes and what impact will it have on that work programme? E.g. water, climate change, urban development, biodiversity

Project description:

Permission has been approved by DoC to add shelter trees and planting at the Blue Lake recreation area. Further permission will be sought to enhance the area around the historic curling ponds which are the entrance way to the upper Lake walking track that is under the management of the organisation.

This area would also have picnic tables installed. Shelter planting and landscaping, with appropriate signage will be installed detailing the walk and allow for people an area to rest or picnic. A working bee would be organised to install the plants and seating and perform any landscaping requirements.

6x picnic tables
Planting
Landscaping materials
Signage

The impact will be beneficial for visitors to the region who regularly visit the Blue Lake (10,000 visitors annually) and residents (500) who wish to utilise the area for their families.

It's crucial that the importance of these areas and their uses be utilised, designated picnic sites with tables, food preparation areas, and spaces suitable for games provide a sense of community pride. They add to the economy, to the environment and everyone benefits from developing these areas. The area would provide information on the walks in the area, and discourage the vandalism and damage caused by trial bike riders using the historic cliff faces by showcasing the pride we have in protecting the heritage areas of significance.

Our unique landscape of the Blue Lake and surrounding mountains, inspires all that visit the area. Our project will improve and enhance our unique area and display our communities sense of pride.

It will provide much needed communal recreation spaces.

This will connect the heritage of the Blue Lake and the gold mining relics with the historic curling ponds and picnicking area once enjoyed by the early pioneers.

The project will provide greater community infrastructure to accommodate and add value to visitors and their experience. Families and residents who celebrate St Bathans rich heritage will take pride in showcasing a vibrant community with facilities that enhance our culture our heritage and that protects the outstanding landscape.

We will support local businesses in purchasing the required materials, plants from local nurseries, picnic tables from local providers eg:the Alexandra MENZshed initiative which supports local community

Blue Lake and Upper Walking Track Enhancement

Otago Regional Council

PROJECT DETAILS CONTINUED

Funding amount

Funds requested from ECO Fund *(Please note: all funds are GST exclusive)*:	6x picnic tables Native Plants Landscaping materials (plant protectors, rocks,posts) Signage
Total project costs: Funding allocation (breakdown of costs): *(see cost breakdown template)*	TOTAL $6418.59 3.5 picnic tables @ $593.51 =$2077.29- menzshed 380 native plants =$2,671.00-mackies nursery 400 Eco Tree/Plant Guards =$1,202.90- ecoguard.co.nz 20 1.8m 150mm H 5 Posts =$467.40 -Goldpine
Have you applied for or received other funding for this project and what is the outcome of this?	The Vincent Community Board granted $1414 for purchasing of 2.5 picnic tables

How did you hear about the ECO Fund?

CODC

Declaration

I have read and agree to the terms and conditions and confirm that all information on this form is true and correct.

☐ Yes

Signature:

Date: 12/10/20

Grand and Otago Skink Collaboration Survey

Otago Regional Council

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Application for funding over $5,000.00

Please supply any supporting documents as part of your application, e.g. quotes, letters of support, project detail.

Once you have completed this application please email it to ecofund@orc.govt.nz or post to:

ECO Fund
Otago Regional Council
Private Bag 1954
Dunedin 9054

CONTACT DETAILS OF PERSON/ORGANISATION

First name:	Finn
Last name:	Ross
Organisation:	Lake Hawea station
Postal Address	
Number/Street name/PO Box:	[redacted]
Suburb:	Hawea
City:	
Region:	Otago
Postcode:	9382
Phone number:	[redacted]
Email address:	[redacted]

PROJECT DETAILS

Please provide a brief 1-2 sentence description of what your project is hoping to achieve and what funds requested are for. This will be used to promote your project on the ORC website and other communications.

Critically endangered Grand and Otago Skink survey, monitoring and restoration.

Grand and Otago Skink Collaboration Survey

PROJECT DETAILS CONTINUED

Project name:	Grand and Otago Skink collaboration survey
Location of project:	Lake Hawea Station
Project start date:	1/12/20
Project finish* date:	8/12/29

Who is involved in the project? E.g. other community groups

Wildlands consulting, Forest and bird

How many volunteers are involved in the project?

6

How many volunteer hours are you expecting for this project?

240

How will you acknowledge the funding you receive from ORC?

We have an extensive Instagram following @lakehaweastationliving both us and forest and bird will share acknowledge ORC+ ecofund on our platforms

Is your organisation an unincorporated membership group, an incorporated society, a trust, a charitable trust, or none of these?

None

Are you GST registered?

Yes

Please use the space below to describe your project, including:

1. How does the project involve or engage with the community?
2. Does the project protect the environment and what impact will this have?
3. Does the project enhance the environment and what impact will this have?
4. Does the project promote or educate others about the environment and what impact will this have?
5. Does the project align with ORC work programmes and what impact will it have on that work programme? E.g. water, climate change, urban development, biodiversity

Project description:

Under new ownership Lake Hawea station is embarking on significant conservation and environmental projects. This includes fencing all waterways, planting 10,000 trees each year, aiming to be 10x carbon negative on farm and supporting our biodiversity which is begging to be studied. Please refer to the Lake Hawea Station website for details on our environmental ambition. Lake Hawea Station is also home to the most Western population of the Nationally Critically endangered population of Otago and Grand Skinks, which have unique colours only found in this area. These skinks were only re-discovered thanks to the Eco fund last year, and with releases of skinks from other projects to the wild not working it is vitally important we obtain data to try and protect this fragile population, an implement further search's and trapping. We are collaborating with forest and bird, who hope to implement a trapping programme and help with the survey, and Wild lands consulting - Carey Knox and Kevin Lloyd who are the top experts on these skinks in New Zealand. The funding received will be used for consultation with wild lands NZ. Once we have established population data on these skinks forest and bird will implement a trapping programme to be followed up with a survey next year. The details of this are in the attached document. We are also restoring the hut to this area and hope to have community volunteers come out to stay in the hut to work on trapping and conservation in the area the skinks inhabit. This project will go hand in hand with LHS' other environmental projects as we look to communicate responsible land custodianship and share our journey of increasing farm production alongside improving biodiversity, improving water quality in a negative carbon system. Please feel free to reach out for any more details.

Grand and Otago Skink Collaboration Survey

Otago Regional Council

Funding amount

Funds requested from ECO Fund (*Please note: all funds are GST exclusive)*:	5,055.40
Total project costs:	$6,500
Funding allocation (breakdown of costs): *(see cost breakdown template)*	Lake Hawea Station is supplying two People for four days of Labour, Vehicle use, fuel, accommodation and food for the various groups that are part of the project to the value of $1,450.
Have you applied for or received other funding for this project and what is the outcome of this?	Yes last year, same project was successful, hoping to build on the awesome work from last year!

How did you hear about the ECO Fund?
Forest and bird

Declaration
I have read and agree to the terms and conditions and confirm that all information on this form is true and correct.

☐ **Yes**

Signature:	
Date:	

Nicols Creek Track

Otago Regional Council

ecofund

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Application for funding over $5,000.00

Please supply any supporting documents as part of your application, e.g. quotes, letters of support, project detail.

Once you have completed this application please email it to ecofund@orc.govt.nz or post to:

ECO Fund
Otago Regional Council
Private Bag 1954
Dunedin 9054

CONTACT DETAILS OF PERSON/ORGANISATION

First name:	Bevan
Last name:	Clayton
Organisation:	Mountain Biking Otago Inc.
Postal Address	
Number/Street name/PO Box:	[redacted]
Suburb:	[redacted]
City:	Dunedin
Region:	Otago
Postcode:	9010
Phone number:	[redacted]
Email address:	[redacted]

PROJECT DETAILS

Please provide a brief 1-2 sentence description of what your project is hoping to achieve and what funds requested are for. This will be used to promote your project on the ORC website and other communications.

Completion of the Nicols Creek Track to achieve connection and transit along Swampy Ridge. (Enhancement of existing walking track network in the area.)

Funding is sought for three tasks 1) Applying gravel to 1km of track by helicopter, 2) Native plantings where gorse cleared and 3) Interpretation boards for trees. (These tasks can be undertaken independently.)

PROJECT DETAILS CONTINUED

Project name:	Nicols Creek Track
Location of project:	Nicols Creek, Leith Valley Rd, Rapid 40, Glenleith, Dunedin
Project start date:	January 2019
Project finish* date:	April 2021

Who is involved in the project? E.g. other community groups

Mainly mountain biking volunteers plus a few walkers and trampers

How many volunteers are involved in the project?

This varies but on average 8 to 10 regular volunteers for Sunday work parties.

How many volunteer hours are you expecting for this project?

Total approaching 14,000

How will you acknowledge the funding you receive from ORC?

Interpretation boards and a permanent acknowledgement board and MBO website

Is your organisation an unincorporated membership group, an incorporated society, a trust, a charitable trust, or none of these?

Incorporated Society, registered charity CC39809, Approved donee (IRD)

Are you GST registered?

Yes

Please use the space below to describe your project, including:

1. How does the project involve or engage with the community?
2. Does the project protect the environment and what impact will this have?
3. Does the project enhance the environment and what impact will this have?
4. Does the project promote or educate others about the environment and what impact will this have?
5. Does the project align with ORC work programmes and what impact will it have on that work programme? E.g. water, climate change, urban development, biodiversity

Project description:

1) Community Benefits of project

*1.1) Recreational usage is the primary community benefit – **cultural service***

We believe recreation is the best way to promote the environment, through the direct personal experience of biodiversity. On the Nicols Creek track, walkers, runners, and bikers can enjoy three different characters of landscape. The bottom 6km of the track consists of south-facing dense native regrowth where the bush was cleared last century. Next, the track enters a significant landscape of original indigenous native bush. Finally, the bush recedes and the track gently climbs through a north-facing volcanic boulder field and dense flax. A rewarding panoramic view of the city is revealed at the top. The track then connects to the existing Swampy Ridge Track. For safety reasons, there is a separate downhill bike line. Alternative short-cut routes are available for walkers.

Completion will enhance nearby walking tracks by providing exciting loop options; i.e., with the Pineapple and Leith Saddle tracks (both walking only) and also the Swampy Spur track. Longer cross-country options are available for bikers, e.g., Swampy Spur to Waitati.

Good bike tracks are designed with a consistent gradient. Hamish Seaton, our track designer, has worked on many noteworthy South Island tracks, e.g., the Old Ghost Road; the Paparoa Track; the

Alps to Ocean trail; and many more under construction. He is in high demand due to the quality of his work.

1.2) Education – sports training
Nicols Creek is close to several schools; access to the track will foster and develop the skills of younger riders, in a traffic-free environment.

1.3) Economic development – (indirect) community benefit.
National cycleways and well-constructed bike networks are attractions for keen cyclists. The more options that Dunedin can provide, the better placed we are to benefit from regional tourism. Urban cities are not eligible for Government national cycleways funding.

2) Environmental and other benefits - protection of biodiversity, community engagement

How does the Nicols Creek track enhance the environment? I suggest we consider the compatibility of our effort with the key objectives of the ORC Biodiversity Action Plan 2019-24.
But first, we should note that the physical impact of constructing the track has been minimal. The track has been cut by hand, machinery has only been used to transport gravel to surface the track. MBO are fundraising to use a helicopter to gravel the last 1km of formed track. The total labour hours are approaching 14,000, applied over more than a decade. Connection to the top (Swampy Ridge) is now in sight.

2.1) ORC Biodiversity Plan 2019-24; Key objective 1) "*The full range of Otago's indigenous ecosystems are maintained in a healthy and fully functioning state ....*"
The Nicols Creek track enables improved access to control weeds. MBO volunteers are actively engaged with weed control, including culling wilding pines, gorse, broom, barberry, and douglas fir. We are seeking funding through the ORC's Eco Fund for native plantings where we have cleared gorse. Please see quotation attached for native plants.

The Nicols track enables **active management** of pests and predators. The ecosystems can now be easily accessed, where before scrambling through dense bush was necessary. Although several possum poison bait stations are installed in a lower part of the track, we are concerned about an original stand of native bush, adjacent to farmland, higher up the track.
The impact of these actions will halt the spread of weeds and ensure that money spent on control work will now go further, because of good access.

2.2) ORC Biodiversity Plan 2019-24 Key objective 2) "*Agencies, community groups and individuals work collaboratively in partnership ... "*
The DCC granted MBO permission to construct the track on council land and recently provided $15,000 funding to support its completion. MBO, a community group, has built the track and is engaged in weed control. We invite the ORC to participate in this partnership; to develop and implement a site specific management plan, for pest and predator control using the track access. The impact of ORC involvement will effectively suppress predator numbers allowing bid life to flourish. This will support propagation of native plants.

2.3) ORC Biodiversity Plan 2019-24 Key objective 3) "*People living in Otago value and better understand biodiversity so that we can all enjoy and share in its benefits*...."
Education: From the picnic table, the track skirts an area of native bush containing Pāhautea (aka NZ Mountain Cedar or Libocedrus bidwillii), and numerous Totara (Podocarpus totara). Based on their size, we estimate that many of the Totara are several hundred years old. Libocedrus are able to be viewed at close range and also from a distance appearing co-dominant in the canopy. We should like to establish at least 2 interpretation boards for Libocedrus. Emeritus Professor Sir Alan Mark has generously offered to visit the track, inspect the indigenous bush and provide guidance. We are seeking funding from the Eco Fund for the interpretation boards. The ORC would be consulted over the content of the boards.

3) Conclusion

The impact of **community engagement** and appreciation for the natural environment means a greater regard and respect for the environment and the ecosystems within. MBO receives numerous compliments for their effort in constructing the track, but the real benefit is about **interaction with nature**. The track enables the experience simply as an easy pathway through the environment. It is the combination of the experience of nature and the interesting and fun path the track travels, that makes the journey so rewarding. Perhaps this is one way to win hearts and minds.

We hope the ECO Fund will view the Nicols Creek Track project as a good fit with the **ORC Biodiversity Action Plan, in particular Focus Areas 1,2,3 and 4** and we would welcome your support. We thank you for your consideration of our project.

Project funding next page

Nicols Creek Track

Funding will be applied to three tasks 1) Applying gravel to 1km of track by helicopter, 2) Native plantings where gorse cleared and 3) Interpretation boards for trees. (These tasks can be undertaken independently.)

Funding amount

Funds requested from ECO Fund (*Please note: all funds are GST exclusive)*:	Track – applying gravel to finish surface $5,000 +GST Native plantings – $1,301 +GST Interpretation boards - $1,350 +GST **Total requested $7,651** +GST if any
Total project costs:	$37,154 +GST
Funding allocation (breakdown of costs): *(see cost breakdown template)*	**Finishing 1km of track:** Gravel purchase and truck delivery to Swampy Summit $8,670 +GST Helicopter transport gravel from Swampy Summit and spreading gravel onto new track $25.833 +GST **Other tasks** **Native plantings and interpretation boards** $2,651 +GST
Have you applied for or received other funding for this project and what is the outcome of this?	Yes. DCC grant received $15,000 + Give a little page donations $4,616 + Ground Effect $2,300 + Various private donations $3,950. Total funds received to date $25,866.

How did you hear about the ECO Fund?

ODT advertisement

Declaration

I have read and agree to the terms and conditions and confirm that all information on this form is true and correct.

YES

Signature:	Bevan Clayton, MBO volunteer/fundraising
Date:	19 October 2020

2nd Waste Free Wanda Tour

Otago Regional Council

ecofund

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Application for funding over $5,000.00

Please supply any supporting documents as part of your application, e.g. quotes, letters of support, project detail.

Once you have completed this application please email it to ecofund@orc.govt.nz or post to:

ECO Fund
Otago Regional Council
Private Bag 1954
Dunedin 9054

CONTACT DETAILS OF PERSON/ORGANISATION

First name:	Anna
Last name:	van Riel
Organisation:	Plastic Free Wanaka
Postal Address	
Number/Street name/PO Box:	[redacted]
City:	Wanaka
Region:	Central Otago
Postcode:	9382
Phone number:	[redacted]

PROJECT DETAILS

Delivered by multi-award winning singer/songwriter Anna van Riel, the focus of this project is to provide the 2nd leg of the fun, interactive and educational musical tour to 30 rural schools and approximately 2,627 pupils and teachers in the Otago region in 2021.
The shows will provide audiences with easy-to-use tools that support positive environmental change around water and wildlife conservation, as well as offering an

insight into how we view our waste on the planet, and how we can each take responsibility and be the change.

PROJECT DETAILS CONTINUED

Project name:	Waste Free Wanda Tour
Location of project:	Otago Regional Primary Schools
Project start date:	July 2020
Project finish* date:	September 2020

Who is involved in the project? E.g. other community groups

Anna van Riel (Performer- www.wastefreewanda.co.nz), Kath Bee (tour liaison)

How many volunteers are involved in the project?

4

How many volunteer hours are you expecting for this project?

15hrs

How will you acknowledge the funding you receive from ORC?

Tour posters, website, social media, announced at each concert, via emails to schools

Is your organisation an unincorporated membership group, an incorporated society, a trust, a charitable trust, or none of these?

Incorporated business with charitable status

Are you GST registered?

No

Please use the space below to describe your project, including:

1. How does the project involve or engage with the community?
2. Does the project protect the environment and what impact will this have?
3. Does the project enhance the environment and what impact will this have?
4. Does the project promote or educate others about the environment and what impact will this have?
5. Does the project align with ORC work programmes and what impact will it have on that work programme? E.g. water, climate change, urban development, biodiversity

Project description:

2nd Waste Free Wanda Tour

Waste Free Wanda is a one-woman musical for children in years 1-8, about a school kid who saves her local river from pollution and teaches her community simple tools on how to prevent pollution on various levels, thus improving habitat for wildlife and humans alike.
The show covers a broad range of environmental issues including biodiversity, protection of waterways and single-use waste. The show is interactive and encourages audience participation and broad thinking, encouraging the children to become superheroes themselves.
The show was delivered to half of the ORC's primary schools in term 2 & 3 of 2020, reaching 2,400 children. Anna was accompanied by award-winning children's performer Kath Bee from Nelson, who supported Wanda as tour liaison and official "audience fizzer". Kath brought a dynamic and professional addition to each show, adding to the memorable and interactive experience for all.
Due to covid, the Waitaki leg of the tour was delivered to just half the targeted schools, as schools were unable to join together for combined shows. The focus for this application is to achieve a tour of the schools who missed out on receiving a show in the first round due to limited funding and covid restrictions.

An outcome from the 1st leg of the ORC Wanda tour was the feedback shared from schools that Wanda provided the inspiration and tools that help to instigate change amongst students and teachers, and at both home and at school.
Another great outcome was that a $3 fee per child was gathered where possible in order to help contribute towards this next leg of the tour, however the aim for this next leg is to make the show free to schools and families.

Wanda shows children how to be a superhero in their home, school and community, through music, creativity and easy-to achieve sustainable solutions.
The objective is to continue touring the show to schools in the wider Central Otago area and reaching our local children and teachers, all the while tapping directly into where long-term change can be made. The 2nd leg of the ORC funded tour would run for 3 weeks, reaching 30 schools and approximately 4,350 students and teachers.

**We fund both one-off projects and those running over multiple years. See terms and conditions for more detail.*

PROJECT DETAILS CONTINUED

Project description continued:

2nd Waste Free Wanda Tour

Waste Free Wanda is a one-woman musical about a school kid who saves her local river from pollution and teaches her community simple tools to reduce waste and prevent plastic pollution, thus improving habitat for wildlife and humans alike. Aimed at primary school students, the musical focuses on protection of wildlife and rivers, raising the issues of single-use waste and encouraging reuse and refill action.

The show features original songs which raise the environmental issues we face, and gives the students a range of solutions to take. It is interactive, with catchy hooks and hand motions that the students quickly learn and join in on, encouraging audience participation, engagement and broad thinking. Each show includes the addition of Q&A at the end to encourage both enquiry, and an ongoing conversation about the changes we can all make in our everyday life.

The show was created through funding from QLDC and volunteer hours. Plastic Free Wanaka founder and chair (and performer) Anna van Riel contributed over 100 voluntary hours in developing the musical as a resource for our community, and was supported by an additional 15 voluntary hours from Plastic Free Wanaka.

The musical has since toured through 10 QLDC schools, delivering solutions and an empowered message on how to be the change, to over 1,500 children. Wanda shows children how to take action in their own home and community to reduce waste. The show has had a positive impact on students and teachers, with feedback revealing that audiences have brought Wanda's solutions home and implemented changes, while also integrating the waste reduction message into school practices (see letters attached).

The objective is to expand the impact of the show by touring it to primary schools in the wider Central Otago area. The proposed ORC funded tour would reach 54 schools and approximately 6,033 students and teachers in the district. It is envisaged that the tour would take three weeks in total, and would be performed in week-long blocks over three months.

1. **How does the project involve or engage with the community?**

Waste Free Wanda shows are interactive, and actively engage with young audiences. Children and teachers are encouraged to participate in the catchy hooks and easy-to-follow actions to support them in remembering the solutions for each environmental issue, particularly water pollution and conservation. This project has a strong focus on the relationship between people and nature, including the importance of kaitiakitanga (guardianship). It also gives children a voice, showing them where they can make a positive change for their future.

2. **Does the project protect the environment and what impact will this have?**

A key prop in the show is a river that runs along the front of the stage. Wanda shares a common thread throughout the show about how all rivers lead to the sea, and how we can, and must, protect our waterways. Each song in the show has a memorable hook that offers the solution to the issue discussed, ie, pollution, single-use plastic, water protection, habitat for wildlife. The aim is to raise the consciousness of our younger generations by providing solutions that can be understood and integrated into their own lives and communities now and for years to come.

3. **Does the project enhance the environment and what impact will this have?**

The musical shares how audiences can both reduce and recover environments impacted by plastic and pollution. There is a huge focus on prevention before recovery, teaching children how to prevent issues before they happen. Each show is followed by a Q&A with pupils, with the opportunity to discuss everything from plastic waste to pollution, and simple ways to reduce environmental impacts from all of these things. Often children use the Q&A to share the actions they are already taking at home, which helps to establish a self-perception and social norm of looking after the environment and our waterways.

2nd Waste Free Wanda Tour

4. **Does the project promote or educate others about the environment and what impact will this have?**

100%, and on a broad spectrum. This show reaches large audiences and leaves behind educational resources in the form of memorable songs, so that schools can continue to use them as a project, performance and topic of discussion with the solutions embedded. It also empowers primary-school aged children to take action on waste reduction at home and in school, as shown in the attached letters.

5. **Does the project align with ORC work programmes and what impact will it have on that work programme? E.g. water, climate change, urban development, biodiversity**

Yes. This project has a strong focus on protecting our waterway, biodiversity and in helping audiences to understand the effect on our environment when we fail to protect it through our actions. It shows us how individually we can affect a positive change in the classroom, at home, in our community and in the ways we interact with others in regards to sustainable change.

Waste Free Wanda travels through the show with her sidekick, a native bird, who is being affected by the pollution. Wanda saves him by teaching her community how to make simple changes in their everyday life to improve his environment and their own.
Songs discuss wildlife, and help children to understand that all rivers lead to the sea and about the negative impacts of plastic pollution.

For a full synopsis on the show you can head to www.wastefreewanda.co.nz

PROJECT DETAILS CONTINUED

2nd Waste Free Wanda Tour

Funding amount

Funds requested from ECO Fund (*Please note: all funds are GST exclusive)*:	$18,415.00
Total project costs:	$18,415.00
Funding allocation (breakdown of costs): *(see cost breakdown template)*	Please see attached budget for full breakdown.
Have you applied for or received other funding for this project and what is the outcome of this?	Not since the last leg, however I have raised $5,000 from the last tour to contribute to this tour.

How did you hear about the ECO Fund?

Several people in the community have suggested the Waste Free Wanda show would align with ECO Fund, due to the focus on caring for our waterways, and its ability to reach so many children in a fun, empowering and memorable way.

Declaration

I have read and agree to the terms and conditions and confirm that all information on this form is true and correct.

☐ ✓ Yes

Signature:	Anna van Riel
Date:	12th October 2020

Otago Regional Council

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Application for funding over $5,000.00

Please supply any supporting documents as part of your application, e.g. quotes, letters of support, project detail.

Once you have completed this application please email it to ecofund@orc.govt.nz or post to:

ECO Fund
Otago Regional Council
Private Bag 1954
Dunedin 9054

CONTACT DETAILS OF PERSON/ORGANISATION

First name:	Hilary
Last name:	Lennox
Organisation:	Ahika Consulting Limited
Postal Address	
Number/Street name/PO Box:	[redacted]
Suburb:	
City:	Dunedin
Region:	
Postcode:	9016
Phone number:	[redacted]
Email address:	[redacted]

PROJECT DETAILS

Please provide a brief 1-2 sentence description of what your project is hoping to achieve and what funds requested are for. This will be used to promote your project on the ORC website and other communications.

The purpose of the Fraser River/Ōtewhata Riparian Enhancement Plan is to identify opportunities to enhance river channel and riparian habitat at identified priority locations to benefit freshwater species, promote the propagation of rare and threatened flora, improve biodiversity and open up public land for recreation.

Both banks of a 2.4 km stretch of the Fraser River/Ōtewhata will be enhanced through weed clearing, planting of native trees, shrubs, flaxes and grasses, the creation of a walking path/cycleway, and the provision of education signage.

PROJECT DETAILS CONTINUED

Project name:	*Fraser River/Ōtewhata Riparian Enhancement Plan*
Location of project:	*Fraser River, Earnscleugh*
Project start date:	*Autumn 2021*
Project finish* date:	*Autumn 2024*

Who is involved in the project? E.g. other community groups

Department of Conservation and Otago Fish & Game have been closely involved in the development of this plan. Aukaha Ltd have shown their support.

Landowners, Rotary, ASB and CO-REAP will all be invited to volunteer. Haehaeata Community Nursery will be approached to supply specialist plants.

How many volunteers are involved in the project?

35 per planting day (10 planting days total over Yrs 1 & 2)

How many volunteer hours are you expecting for this project?

1,400 +

How will you acknowledge the funding you receive from ORC?

ODT media release, NatureSpace articles, DOC website, F&G website, local newspapers,

Is your organisation an unincorporated membership group, an incorporated society, a trust, a charitable trust, or none of these?

None

Are you GST registered?

Yes

Please use the space below to describe your project, including:

1. How does the project involve or engage with the community?
2. Does the project protect the environment and what impact will this have?
3. Does the project enhance the environment and what impact will this have?
4. Does the project promote or educate others about the environment and what impact will this have?
5. Does the project align with ORC work programmes and what impact will it have on that work programme? E.g. water, climate change, urban development, biodiversity

Fraser River Otewhata Riparian Enhancement Plan

Project description:

See attached report for further information.

Overview

- Enhancement of a 2.4 km stretch of the Fraser River/Ōtewhata from Earnscleugh Rd and Laing Rd.
- Most of this falls along DOC marginal strips, but some will be on private land.
- 1.56 ha of enhanced riparian margin that will be enjoyed by recreational users.
- 5,000 native plants will planted.
- Walking/cycling track will be constructed.
- The planting will provide erosion protection measure along stream banks.
- Training will be provided to upskill local volunteers in plant identification, seed collection, native plant propagation, planting and maintenance.
- River bank will be opened up for public access and enjoyment.
- Information displayed on signage will focus on how/why the site has been planted, details about the flora and fauna within the site (particularly threatened species), and information on the Māori and European history of the area.
- This project is in strong alignment with the ORC's RPS, PO-RPS and RPW.
- Availability of funding is the only constraint.

Outcomes

- Enhanced instream and riparian habitat for the benefit of instream and terrestrial fauna and flora.
- Improved biodiversity through weed control and propagation of rare/threatened species.
- Improved water quality through reduced sediment and nutrient inputs.
- Raised education and awareness.
- Greater use of the Fraser River riparian margins by the general public. Currently there is no public access even though there are marginal strips in places.
- Providing significant benefits to the local economy through purchase of plants, engagement of planting, fencing and weed control contractors, rock suppliers, earthworks company

**We fund both one-off projects and those running over multiple years. See terms and conditions for more detail.*

PROJECT DETAILS CONTINUED

Funding amount

Funds requested from ECO Fund (*Please note: all funds are GST exclusive)*:	$63,695
Total project costs:	$188,220

Fraser River Otewhata Riparian Enhancement Plan

Funding allocation (breakdown of costs): *(see cost breakdown template)*	See attached: • EcoFund cost breakdown; and • 201002 EcoFund Application spreadsheet Funding is sought from ORC's EcoFund to cover the costs for Year 1
Have you applied for or received other funding for this project and what is the outcome of this?	No

How did you hear about the ECO Fund?

Word of mouth

Declaration
I have read and agree to the terms and conditions and confirm that all information on this form is true and correct.

X Yes

Signature:	
Date:	19 October 2020

Biostream

Otago Regional Council

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Application for funding over $5,000.00

Please supply any supporting documents as part of your application, e.g. quotes, letters of support, project detail.

Once you have completed this application please email it to ecofund@orc.govt.nz or post to:

ECO Fund
Otago Regional Council
Private Bag 1954
Dunedin 9054

CONTACT DETAILS OF PERSON/ORGANISATION

First name:	Casey
Last name:	Cravens
Organisation:	BioStream
Postal Address	
Number/Street name/PO Box:	[redacted]
Suburb:	[redacted]
City:	Dunedin
Region:	Otago
Postcode:	9010
Phone number:	[redacted]
Email address:	[redacted]

PROJECT DETAILS

Please provide a brief 1-2 sentence description of what your project is hoping to achieve and what funds requested are for. This will be used to promote your project on the ORC website and other communications.

Our goal is the enhancement of water quality through an innovative biological approach described as Floating Treatment Wetlands ('FTW's'.) This will improve the health of freshwater and estuary ecosystems.

PROJECT DETAILS CONTINUED

Project name:	BioStream
Location of project:	Otago and Southland
Project start date:	November, 2020
Project finish* date:	Ongoing

Who is involved in the project? E.g. other community groups

We have initially approached the Pomahaka Water Care Group but plan to reach out to other catchment groups, as well as Land Care Trust, local schools and recreational and conservation clubs.

How many volunteers are involved in the project?

We would recruit as many volunteers as possible.

How many volunteer hours are you expecting for this project?

200

How will you acknowledge the funding you receive from ORC?

On a website, on social media, through media releases and videos.

Is your organisation an unincorporated membership group, an incorporated society, a trust, a charitable trust, or none of these?

We are registered as an LLC, but we can also become an incorporated society if fundraising requires it. We are in the process of registering as a charitable company. We plan to operate in a space between a social enterprise and a for-prophet business, so that we can become self-sustaining beyond soft money. The idea behind that is like that of a B Corporation. https://bcorporation.net

Are you GST registered?

We will be

Please use the space below to describe your project, including:

1. How does the project involve or engage with the community?
2. Does the project protect the environment and what impact will this have?
3. Does the project enhance the environment and what impact will this have?
4. Does the project promote or educate others about the environment and what impact will this have?
5. Does the project align with ORC work programmes and what impact will it have on that work programme? E.g. water, climate change, urban development, biodiversity

Project description:

Eco Project Application

Submitted by BioStream, Ltd
20 October 2020

BioStream is a startup whose goal is the enhancement of water quality through an innovative biological approach described as Floating Treatment Wetlands ('FTW's'). We would welcome Otago Regional Council as an early partner.

We see this as a two-step process. The first step is stakeholder engagement on the application of FTW's. The second step would involve the installation of pilot projects.

The first stage of this would be to establish public engagement and communications advisor for a six-month period. The role of this position includes the following actions.

1. Meet with regional farmers to identify suitable sites which may have the largest impact on reducing agricultural runoff and enhancing freshwater and estuary ecosystems.
2. Establish a website that would serve as a clearing house platform on the role of floating wetlands as an additional tool for improving the health of indigenous ecosystems.
3. Promote the targeted use of floating wetlands on social media, digital marketing, and op-ed pieces in local and national media.
4. Liaison and development work through collaborating with farmer catchment groups such as the Pomahaka Land Care Group and the Maniototo Land Care Group.
5. Develop educational materials for primary and secondary schools, and recreational fishing and hunting clubs and conservation groups, such as Fish and Game, and Royal Forest and Bird.
6. The cost of such a public engagement advisor position would be about $45 per hour, or $92,000-$102,000 annually, plus travel expenses. We would seek funding from other sources to make up 50 percent of position's salary, or the advisor would make an in-kind contribution by working at half the commercial rate. https://www.payscale.com/research/NZ/Job=Senior_Communications_Advisor/Salary.

The second step would be the actual installation of a several pilot projects to test proof of concept in different rural environments. Floating Treatment Wetlands are an engineered product that is not subject to the issues of water tracking, siltation, or floods and can be used in conjunction with the restoration of wetlands in areas where the removal of nitrates, phosphorous and E. coli are targeted.

The cost of the Floating Treatment Wetlands installation will depend on the size, but we would plan on budgeting $20,000-$50,000 to cover the costs of the platforms, which are $500 per square metre, when established and planted on site.

BioStream's founding partner, Casey Cravens, is proposed as the public engagement advisor for the first phase. His CV is also attached. Hugh Forsyth, the other founding partner, is a registered landscape architect, and he will serve in a voluntary capacity until we secure funding for his consulting salary on project compliance with local authorities. We estimate the value of his in-kind contributions to be in the neighborhood of $50K for the first six months.

Biostream

Funding amount

Funds requested from ECO Fund (*Please note: all funds are GST exclusive)*:	
Total project costs:	$76,600
Funding allocation (breakdown of costs): *(see cost breakdown template)*	$50,000 Communications and Engagement Advisor $9,600 Travel Expenses $12,000 Website design and branding $5,000 Digital marketing
Have you applied for or received other funding for this project and what is the outcome of this?	We are in the process of doing so.

How did you hear about the ECO Fund?

ORC website

Declaration

I have read and agree to the terms and conditions and confirm that all information on this form is true and correct.

xYes

Signature:	Robert Casey Cravens
Date:	20/10/2020

Bruce Community Glass Crusher

Otago Regional Council

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Application for funding over $5,000.00

Please supply any supporting documents as part of your application, e.g. quotes, letters of support, project detail.

Once you have completed this application please email it to ecofund@orc.govt.nz or post to:

ECO Fund
Otago Regional Council
Private Bag 1954
Dunedin 9054

CONTACT DETAILS OF PERSON/ORGANISATION

First name:	Catherine
Last name:	Paul
Organisation:	Project Bruce
Postal Address	
Number/Street name/PO Box:	[redacted]
Suburb:	Milton
City:	
Region:	South Otago
Postcode:	9220
Phone number:	[redacted]
Email address:	[redacted]

PROJECT DETAILS

Please provide a brief 1-2 sentence description of what your project is hoping to achieve and what funds requested are for. This will be used to promote your project on the ORC website and other communications.

Providing machinery which will enable our community to recycle/reuse/repurpose our glass bottles and jars. The machinery is mobile which means that it can also be used with the schools, businesses and groups in our community as an educational tool regarding resource recovery.

Bruce Community Glass Crusher

PROJECT DETAILS CONTINUED

Project name:	Bruce community glass crusher
Location of project:	Toko Golf Club, Milburn, 9291 (the glass crusher is mobile so it will be utilised all over the Bruce community, this is the physical storage location)
Project start date:	01/02/21
Project finish* date:	01/02/22

Who is involved in the project? E.g. other community groups

The glass crusher would be located at the Toko Golf Club and will be utilised by a large number of our Bruce District residents – both organisations and individuals. The project is being facilitated by Project Bruce the Milton based community development organisation for the Bruce District. As this equipment is mobile it can be used in many of the different businesses/community groups/educational facilities in our area.

How many volunteers are involved in the project?

The Toko Golf Club has 91 members. The Club is operated by volunteers - these volunteers will have access to the machine and will help to man it when it is open for community use. We are expecting a high level of community involvement with this project as during our initial community consultation, glass reuse and recycling was a high priority and is something that we are frequently questioned about.

How many volunteer hours are you expecting for this project?

The machine will be available for community use for two hours per week initially and it will be manned by one volunteer for this time. We anticipate that Sports Clubs, businesses, schools and community groups will get on board with the crusher and once training is given will also take their glass to the Golf Club for recycling. The number of volunteers involved in various clubs and organisations around the community is significant. It is likely that one or two from each club will be nominated for waste disposal. 30 volunteers would be realistic at this point which would equate to approximately twenty hours per fortnight (as most would save up bottles and do them all at once).

How will you acknowledge the funding you receive from ORC?

Project Bruce has a strong social media following and a website which we currently use for advertising and acknowledgements. We are intending to use this to acknowledge the funding. We produce a quarterly local newsletter in which we will thank ORC for their funding for this project. We have regular stories published in the Otago Daily Times and the Clutha Leader and will initiate a feature around the glass crusher. We also have wall space in the Tokomairiro Community Hub where we will acknowledge the ORC.

Is your organisation an unincorporated membership group, an incorporated society, a trust, a charitable trust, or none of these?

Charitable trust

Are you GST registered?

Yes

Please use the space below to describe your project, including:

1. How does the project involve or engage with the community?
2. Does the project protect the environment and what impact will this have?
3. Does the project enhance the environment and what impact will this have?
4. Does the project promote or educate others about the environment and what impact will this have?

5. Does the project align with ORC work programmes and what impact will it have on that work programme? E.g. water, climate change, urban development, biodiversity

Project description:

Project Bruce is a community development programme which was formed in 2017. In the early stages of the project, we carried out a community consultation to find out what our people care about and what they would like to get involved with. We used their responses and feedback to identify community action projects and initiatives. These have since been actioned and continue to evolve, connecting people and resources for a strengthened District.

These projects included a very strong message that our community is passionate about developing and improving sustainability in the Bruce District. One of the initiatives in particular which community organisations and members have shown significant interest in is to address the recycling of glass.

Project Bruce is requesting funding to purchase a GL sand glass crushing machine for use in our local community. Currently the Milton area does not have access to curb side glass recycling which ultimately leads to glass bottles being placed in with general household waste. Although glass is an inert material which does not leach nasty chemicals during the break down process, it is still taking up valuable landfill space. Having this machine available for community members to use will reduce a current waste stream while providing a resource (sand) for use in the community.

The Toko Golf Club will use any excess sand for their golf bunkers. This project will also provide hands on education to those in the community regarding a reuse resource model.

The glass crusher will be kept in a locked implement shed at the Toko Golf Club. It will be available initially for community use for two hours per week and during these two hours a volunteer will be present. The sand will also be available for collection by the community at this time. The sand produced by the glass crushing machine is suitable for landscaping and use in the garden.

The glass crusher can readily be mobile so we anticipate that it will be utilised at various sites around the District, for a larger amount of time in the future. We also anticipate that seeing and utilising the crusher will inspire businesses who currently send a lot of glass to landfill will purchase their own in the future.

Thank you for considering our application. We appreciate that this application is for an item that may not be deemed essential in communities where glass recycling is available, but for us this is an important way to reduce waste to landfill and to bring our community together and connecting in a new way. It also provides an opportunity for waste minimisation education and workshops and provides a new low-cost resource with the production of sand.

Bruce Community Glass Crusher

Funding amount

Funds requested from ECO Fund (*Please note: all funds are GST exclusive)*:	$5509.00
Total project costs:	$5509.00
Funding allocation (breakdown of costs): *(see cost breakdown template)*	(cost breakdown template attached)
Have you applied for or received other funding for this project and what is the outcome of this?	Yes, we applied for funding for this same project in the previous funding round and were unsuccessful.

How did you hear about the ECO Fund?

I came across it on the internet while researching different options for environmental project funding.

Declaration

I have read and agree to the terms and conditions and confirm that all information on this form is true and correct.

☐ Yes

Signature:	
Date:	16/10/20

OSRC Catchments Meetings

Amber Smith

From: JotForm <noreply@jotform.com>
Sent: Wednesday, 14 October 2020 1:24 p.m.
To: Eco Fund
Subject: Re: ECO Fund Application for funding UNDER $5,000 UPDATED

Environmental Enhancement Fund

Name	Suzie Bearman
Organisation	Otago South River Care Inc.
Address	Street Address: [redacted] City/Town: Balcutha Region: Otago Post Code: 9340
Phone Number	[redacted]
E-mail	[redacted]
Please provide a brief 1-2 sentence description of what your project is hoping to achieve and what funds requested are for. This will be used to promote your project on the ORC website and other communications.	O.S.R.C is and umberlla orgainisation used to help with running catchment group meetings for our 6 areas
Project name	OSRC catchments meetings
Location of project	Waiwera-,Owaka,-Lawence-,Clutha,-Tuakitoto,-Milton
Project start date:	15-10-2020
Project finish date	01-10-2021
Who is involved in the project, e.g. other community groups	Mainly farmers from though out the area also school groups
Is your organisation an unincorporated membership group, an incorporated society, a trust, a charitable trust, or none of these?	Otago South River Care Inc is a society group
Are you GST registered?	Yes

OSRC Catchments Meetings

Project description	We are involving farmers from around our region but need help with funding to run our meetings We will promote best practice engage with farmers to discuss issues, farmer lead ideas, help farmers find solutions ,support projects within our area, engage relevant speakers to promote an interest in belonging to a catchment group and improve water quality .
Funds requested from ECO Fund (please note: all funds are GST exclusive)	$4,500
Total project costs	$4,500
Funding allocation (see cost breakdown template)	3 Catchment Meetings @$300 /month(for 11 months made up of hall hire $150 food $150) One guest speaker (Rodger Dalrymple)for whole catchment $500 and hall hire @$150 Promoting Catchment groups and why you should belong
Have you applied for, or recieved, other funding, for this project and what is the outcome of this?	Clutha Community Trust for start up costs ,Data base ,Xreo Accountant , which was successful
How did you hear about the ECO Fund?	Lloyd McColl
I have read and agree to the terms and conditions and confirm that all information on this form is true and correct	Yes

Pest Free Pisa Moorings

Otago Regional Council

ecofund

Environment. Community. Otago.
Te Ao Turoa. Hapori. Ōtākou.

Application for funding under $5,000.00

Please supply any supporting documents as part of your application, e.g. quotes, letters of support, project detail.

Once you have completed this application please email it to ecofund@orc.govt.nz or post to:

ECO Fund
Otago Regional Council
Private Bag 1954
Dunedin 9054

CONTACT DETAILS OF PERSON/ORGANISATION

First name:	Stu
Last name:	Taylor
Organisation:	Pisa District Community Group
Postal Address	
Number/Street name/PO Box:	[redacted]
Suburb:	[redacted]
City:	Cromwell
Region:	Otago
Postcode:	9383
Phone number:	[redacted]
Email address:	[redacted]

PROJECT DETAILS

Please provide a brief 1-2 sentence description of what your project is hoping to achieve and what funds requested are for. This will be used to promote your project on the ORC website and other communications.

We intend to rid Pisa Moorings of rabbits, ferrets, rats and other pests. Funds are needed for rabbit poison and traps.

PROJECT DETAILS CONTINUED

Project name:	Pest Free Pisa Moorings
Location of project:	Pisa Moorings Cromwell
Project start date:	15/9/20
Project finish* date:	15/9/21
Who is involved in the project? e.g. other community groups	

Is your organisation an unincorporated membership group, an incorporated society, a trust, a charitable trust, or none of these?

Incorporated society

Are you GST registered?

no

Please use the space below to describe your project, including:

1. How does the project involve or engage with the community?
2. Does the project protect the environment and what impact will this have?
3. Does the project enhance the environment and what impact will this have?
4. Does the project promote or educate others about the environment and what impact will this have?
5. Does the project align with ORC work programmes and what impact will it have on that work programme? E.g. water, climate change, urban development, biodiversity

Project description:

Pisa Moorings is a growing subdivision of 370 residences on 90 ha.
Bounded to the east by Lake Dunstan with 3.4 km of lakefront which is a linz reserve.
South is a property also managed by linz.
North is the Parkburn quarry.
West is a cherry orchard and SH6. A 3 ha vineyard lies between residences and SH6.
We are in negotiation with the owners to include it in the project area.
As with most of Central Otago rabbits are a chronic problem. They cause destruction in gardens, lawns and reserve areas. The resultant burrows are unsightly and dangerous.

On 13/9 a public meeting of residents was called and a committee of 6 formed to deal with the problem. It was also felt prudent and opportune to eliminate ferrets and rats at the same time. Taking out the rabbits and leaving predators would lead to the decimation of our bird life. The lakefront inlets are home to ducks, scaups, grebes and coots. We also have quail and the normal range of land based birds.

Rabbits
An immediate start was made using volunteers with magtoxin to kill rabbits and fill in warrens. In one month we have done 48 man hours of this effort.

Fencing
Any rabbit control program is dependent on rabbit proof perimeters.
Most of the subdivision boundary is already fenced. We are planning on the basis of the vineyard being included and the road boundary being fenced by the owners.
The cycleway which passes through the area by way of the lakefront reserve requires rabbit proof gates/crossings and some fence at each end. We are finalising designs for these. We expect to fund these by way of an appeal to residents which has just opened.

Pest Free Pisa Moorings

Main Entrance
The road entry from SH6 will be the only part of the perimeter not rabbit proof.
Not a lot we can do but be prepared for any rabbits that do come in.

Ferrets and Rats
We plan to target these with traps available to residents and set in strategic positions. We hope to retain a predator trapping expert to give guidance in this area.

We intend this project to eliminate the damage caused by rabbits and enhance the opportunities to develop gardens and reserve plantings.
By eliminating predators we expect bird life to flourish.

We are a community based group and with rabbit damage being widespread a lot of discussion is taking place around the success of this project.
We hope this leads to a greater awareness and appreciation of our surroundings in general and flora and fauna in particular.

**We fund both one-off projects and those running over multiple years. See terms and conditions for more detail.*

Funding amount

Funds requested from ECO Fund (*Please note: all funds are GST exclusive)*:

Magtoxin	20 @ $38	760
Traps	10 @ $59	590
Setting tools	3 @ $35	105
Plywood	1 @ $132	132
Screws etc	$30	30
Mesh	$35	35
____		$ 1652

Total project costs:

Funding allocation (breakdown of costs):

(see cost breakdown template)

Gates / crossings	4500
	$6152

Note
Magtoxin needs are estimated as 2 per week for 8 weeks plus 4 for maintenance.
Cost of gates / crossings / fencing may vary depending on final design.
Plywood etc to build boxes for traps

Have you applied for or received other funding for this project and what is the outcome of this?	No

How did you hear about the ECO Fund?

On the ORC website

Declaration

I have read and agree to the terms and conditions and confirm that all information on this form is true and correct.

☐ Yes

Signature:	Stu Taylor
Date:	19 / 10 / 20

The Woolies

Otago Regional Council

ecofund

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Application for funding under $5,000.00

Please supply any supporting documents as part of your application, e.g. quotes, letters of support, project detail.

Once you have completed this application please email it to ecofund@orc.govt.nz or post to:

ECO Fund
Otago Regional Council
Private Bag 1954
Dunedin 9054

CONTACT DETAILS OF PERSON/ORGANISATION

First name:	Glen
Last name:	Perkins
Organisation:	Perkins Networks Ltd
Postal Address	
Number/Street name/PO Box:	[redacted]
Suburb:	[redacted]
City:	Roxburgh
Region:	Otago
Postcode:	9572
Phone number:	[redacted]
Email address:	[redacted]

PROJECT DETAILS

Please provide a brief 1-2 sentence description of what your project is hoping to achieve and what funds requested are for. This will be used to promote your project on the ORC website and other communications.

I have a 30ha native bush block on my farm which is devoid of birdlife. My aim is to eradicate all possums, ferrets, cats, stoats, and rats in this block by using poison and trap lines and ongoing monitoring and retain the area as an eco sanctuary.

PROJECT DETAILS CONTINUED

Project name:	The Woolies
Location of project:	7137 Ettrick- Raes Junction Rd, Raes Junction
Project start date:	1st October 2020
Project finish* date:	Ongoing
Who is involved in the project? e.g. other community groups	Myself and my children and the Millers Flat School. I want to be able to use this project as an example to others in the community as to what can be achieved.

Is your organisation an unincorporated membership group, an incorporated society, a trust, a charitable trust, or none of these?

no

Are you GST registered?

Yes

Please use the space below to describe your project, including:

1. How does the project involve or engage with the community?
2. Does the project protect the environment and what impact will this have?
3. Does the project enhance the environment and what impact will this have?
4. Does the project promote or educate others about the environment and what impact will this have?
5. Does the project align with ORC work programmes and what impact will it have on that work programme? E.g. water, climate change, urban development, biodiversity

Project description:

Since TB pest control organisations have stopped eradication programs for possums and ferrets in our area, the numbers of these pests have exploded and are having a devastating effect on the natural flora and fauna in Raes Junction.
My aim is to concentrate efforts in this 30ha block of manuka and natives and showcase what can be done if people are willing to put in the time and effort to preserve such areas.
The project will involve monitoring by myself and children from the Millers Flat school, with the goal of being able showcase to other interested groups and landholders to encourage further projects in our valley.
Re-establishment of sustainable numbers of native birds and regeneration of the native bush are the key drivers of this project.
I would like representatives from DOC in our area to work along side us to ensure best practice methodology is used and have contacted them for advice already.
I have been gifted approx. 150 bait stations from a lady in Alexandra via DOC to start this project so the funding applied for is to cover costs of baits, traps, and riparian planting.

See .pdf map of area attached and google earth file.

**We fund both one-off projects and those running over multiple years. See terms and conditions for more detail.*

The Woolies

Otago Regional Council

PROJECT DETAILS

Funding amount

Funds requested from ECO Fund (*Please note: all funds are GST exclusive*):	This is to be an ongoing project. Costs projected are for the short to medium term
Total project costs:	$4746.00
Funding allocation (breakdown of costs): *(see cost breakdown template)*	Costs incurred to date GST exclusive (invoices attached): $960 CSL licence to purchase poisons. $386.50 Feratox, pre-feed and sample rat trap. Approx Projected costs going forward: $900 further bait and lures for possums, ferrets, stoats, cats and rats. $1500 establishment of permanent trapping lines to back up poison campaigns. Predominantly DOC 150 and Possum mater traps via Connovation, Auckland $1000 riparian planting of natives around perimeter of block to encourage regeneration of existing natives
Have you applied for or received other funding for this project and what is the outcome of this?	No

How did you hear about the ECO Fund?

Internet search

Declaration

I have read and agree to the terms and conditions and confirm that all information on this form is true and correct.

☑ Yes

Signature:

Date: 28-9-2020

7.5. ORC Greenhouse Gas Emissions Inventory

Prepared for:	Council
Report No.	CS1966
Activity:	Internal Projects: Corporate
Author:	Nick Donnelly, General Manager Corporate Services
Endorsed by:	Nick Donnelly, General Manager Corporate Services
Date:	17 November 2020

PURPOSE

[1] To receive the attached report on Otago Regional Council's Greenhouse Gas Emissions.

EXECUTIVE SUMMARY

[2] As part of the Annual Plan 2020-21 it was agreed Council would complete an assessment of its organisational greenhouse gas (GHG) emissions. That assessment of Council's greenhouse gas inventory has been completed and the report "Otago Regional Council Greenhouse Gas Emissions 2018/19 Tax Year" is attached.

[3] The report provides analysis of Council's GHG emissions over the 2018/19 financial year. This period was used as it was the most recently completed financial year at the time the analysis was undertaken.

[4] The total gross carbon dioxide equivalents for the ORC are 578 tonnes (577,928 kilograms).

[5] In terms of activities: transport fuels are the most significant emissions, representing 60% of all the Council's emissions, followed by domestic air travel at 18%, and purchased electricity at 13%.

[6] The Executive Leadership Team (ELT) has reviewed and discussed the report and agreed to work through the recommended action plan contained within the report and implement those recommendations to reduce ORC's GHG emissions wherever possible.

[7] ELT also agreed the purchase of carbon offsets should be considered to move ORC to a net carbon zero position and this will be progressed with a view to including this process and cost in the LTP 2021-31.

RECOMMENDATION

That the Council:

1) ***Receives*** *this report and the attached "Otago Regional Council Greenhouse Gas Emissions 2018/19 Tax Year" report.*

2) ***Notes*** *the recommended action plan included in the report and that Council staff will work through those actions and consider the process and cost of purchasing carbon offsets for inclusion in the LTP 2020-31.*

BACKGROUND

[8] A greenhouse gas (GHG) inventory is a comprehensive analysis of an organisation's applicable GHG emissions and removals within a defined boundary, over a specified period. This is the first annual GHG emissions inventory undertaken by the ORC. This report provides details of ORC's baseline inventory and associated analysis.

[9] ORC has no reporting obligations, and this inventory has been undertaken on a voluntary basis, with the following key aims:

- Understanding the Council's current carbon footprint.
- Stimulating planning for reducing / mitigating carbon emissions.
- Providing a base year for data, which will allow GHG emissions to be tracked and compared annually, in order to determine the success of carbon reducing initiatives.

[10] This report follows guidance given by the New Zealand Government, Guidance for Voluntary Greenhouse Gas Reporting (MfE 2019). This approach includes adopting the methodology outlined by GHG Protocol Corporate Accounting and Reporting Standard (World Business Council & World Resources Institute 2001) and ISO 14064-1: 2018 standard (International Standards Organisation 2018)

DISCUSSION

[11] The GHG Protocol identifies three different scopes of emissions, to help delineate direct and indirect emission sources. Scopes 1 and 2 are required under the GHG Protocol. Scope 3 is optional, providing organisations with an opportunity to be innovative in GHG management.

[12] The quantification methodology in this report uses calculations based on GHG activity data multiplied by GHG emission or removal factors. Activity data relates to a measure of activity that results in a GHG emission or removal (e.g., litres of petrol fuel from vehicle travel). Emissions factors are calculated from activity data to estimate GHG emissions.

[13] The report takes an operational control consolidation approach to account for emissions, which is recommended as best practice. This approach allows the ORC to focus on the emission sources over which the organisation has day-to-day control and can consequently implement management decisions. Therefore, contracted public transport services and subsidiaries (Port Otago) are excluded.

[14] The total gross carbon dioxide equivalents for the ORC are 578 tonnes (577,928 kilograms).

[15] In respect to scope: the most significant emissions are associated with Scope 1 emissions (direct emissions) account for the largest proportion of emissions at 62%, followed by Scope 3 (other indirect emissions) at 25%, and Scope 2 (indirect emissions) at 13%.

[16] In terms of activities: transport fuels are by far the most significant emissions, representing 60% of all the Council's emissions, followed by domestic air travel at 18%, and purchased electricity at 13%.

[17] An action plan is provided in Section 3 (page 28) of the report. It summarises the recommended actions contained in each section of the report. This is a comprehensive list, and the ORC staff will work through it and prioritise the recommended actions. The timeframes are deemed the following: short - within one year; medium - one to two years; long – three years plus.

[18] The action plan includes a number of relatively easy actions to implement i.e., focusing on staff education and using low carbon alternatives where possible (not driving / flying).

[19] The implementation of some other actions, particularly the high impact ones, will take time and are dependent on other factors, for example:

- Electricity costs for Head Office will be difficult to reduce in the short term until a suitable alternative site is found and relocation occurs. There are currently physical infrastructure limitations with the Stafford St site that prevent adding electric charging infrastructure at this time i.e., the switchboard is at capacity and requires upgrading and cannot handle the additional load some of the actions would require.
- Relocation of Head Office may also be used as a catalyst for introducing electric vehicles into the fleet and expanding facilities for staff cycling and e-bike charging (unless that infrastructure can be installed into Stafford St and still provide value for money to ratepayers).
- Motor vehicle requirements are heavily dependent on intended use and suitable low carbon alternatives being available in the market. ORC's intention is to move to low/zero carbon vehicles as soon as that is practical and once feasible will do so over time as vehicles come due for replacement.

[20] The purchase of carbon offsets is an option to move Council to a net carbon zero position. Assuming carbon offsets are approximately $25 per tonne the cost to Council at current emission levels would be $14,450 per annum. This option will need to be investigated further and the process and cost can be included in the LTP 2021-31. Regardless, Council would still aim to reduce its gross emissions over time.

CONSIDERATIONS

Policy Considerations

[21] There are no policy considerations.

Financial Considerations

[22] There will be cost implications from implementing the recommended actions. Some actions may result in higher costs i.e., procurement costs may be higher to achieve a lower emission outcome, but some costs may reduce as a result i.e., lower travel expenditure.

[23] The cost of carbon offsets to achieve a net carbon zero position is estimated at $14,450 based on the 2018/19 level of emissions.

Significance and Engagement

[24] There are no significance and engagement considerations.

Legislative Considerations

[25] There are no legislative considerations.

Risk Considerations

[26] There are no risk considerations.

ATTACHMENTS

1. Otago Regional Council Emissions Inventory 2018-19 (August 2020) [**7.5.1** - 32 pages]

Otago Regional Council
Greenhouse Gas Emissions
2018/19 Tax Year

(1 July 2018 – 30 June 2019)

Contents

Introduction

Organisation Description

The Otago Regional Council (ORC) is responsible for managing Otago's land, air and water resources on behalf of the community. Otago is New Zealand's second largest region, and comprises of Central Otago, Clutha, Dunedin, Queenstown Lakes, and Waitaki. Key services include:

- Water quality and water quantity management.
- River management.
- Air quality and pollution monitoring.
- Climate monitoring.
- Biosecurity, including animal and plant pest control.
- Civil defence emergency management.
- Hazard management.
- Coastal and harbour management.
- Resource consenting/compliance.
- Policy development.
- Regional land transport planning.

In addition to looking after the environment the ORC is also focused on the economic, cultural, and social needs of the people of Otago. This includes contracting out transport services, transport planning, and leading the planning and responses to floods and other natural disasters to help keep people and properties safe.

The Council has 12 offices/depots around the region, with headquarters located in Dunedin.

Statement of Intent

A greenhouse gas (GHG) inventory is a comprehensive analysis of an organisation's applicable GHG emissions and removals within a defined boundary, over a specified period. This is the first annual GHG emissions inventory undertaken by the ORC. This report provides details of this baseline inventory and associated analysis. The organisation has no reporting obligations and this inventory has been undertaken on a voluntary basis, with the following key aims:

- ✓ Understanding the Council's current carbon footprint.
- ✓ Stimulate planning for reducing/ mitigating carbon emissions.
- ✓ Provide a base year for data, which will allow GHG emissions to be tracked and compared annually, in order to determine the success of carbon reducing initiatives.

The Council believes that climate change needs to be considered in all that is done to monitor and protect the environment.

Approach

This report follows guidance given by the New Zealand Government, *Guidance for Voluntary Greenhouse Gas Reporting* (MfE 2019). This approach includes adopting the methodology outlined by *GHG Protocol Corporate Accounting and Reporting Standard* (World Business Council & World Resources Institute 2001) and *ISO 14064-1: 2018 standard* (International Standards Organisation 2018).

A GHG is a gaseous constituent of the atmosphere, both natural and anthropogenic. There are six GHGs listed in the Kyoto Protocol: carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride (SF_6). Each gas absorbs and emits radiation at different wavelengths, within a specific atmospheric residence time. These differences result in different global warming potentials (GWPs). In order to make comparisons between the different gases, GHG emissions are typically expressed as carbon dioxide equivalent ($CO_{2\text{-}e}$).

Under the reporting requirements of *ISO 14064-1:2018* and the *GHG Protocol*, GHG emissions should be reported in tonnes of $CO_{2\text{-}e}$. However, some emissions are too small to be reported meaningfully in tonnes, so this report utilises emission factors in kilograms of $CO_{2\text{-}e}$ per unit. To help with the reader's comprehension, this report refers to overall carbon dioxide equivalent emissions in tonnes (rounded up) in the main section and uses kilograms in the methodology section.

The quantification methodology in this report uses calculations based on GHG activity data multiplied by GHG emission or removal factors. Activity data relates to a measure of activity that results in a GHG emission or removal (e.g. litres of petrol fuel from vehicle travel). Emissions factors are calculated from activity data to estimate GHG emissions. These emission factors have been calculated using GWPs sourced from the IPCC's Fourth Assessment Report (2007).

Organisational Boundaries

Organisational boundaries have been determined as required by the methodology in the *ISO 14064-1: 2018 standard*, which allows for two approaches:

- ***Control***: the organisation accounts for all quantified GHG emissions and/or removals from facilities over which it has financial or operational control; or
- ***Equity share***: the organisation accounts for its portion of GHG emissions and/or removals from respective facilities.

This report takes an operational control consolidation approach to account for emissions, which is recommended as best practice. This approach allows the ORC to focus on the emission sources over which the organisation has day-to-day control and can consequently implement management decisions.

Reporting Period: Financial Year 2018/19

Organisations can choose to report on a calendar or financial year basis. This inventory focuses on the governmental financial year, covering the period from 1 July 2018 to 30 June 2019, which will be established as a base year for comparative purposes within future reports.

Scope

The GHG Protocol identifies three different scopes of emissions, to help delineate direct and indirect emission sources. Scopes 1 and 2 are required under the GHG Protocol. Scope 3 is optional, providing organisations with an opportunity to be innovative in GHG management. Scopes 1 and 2 are carefully defined to ensure that two or more organisations will not account for emissions in the same scope. The activities that occur in Scope 3 for some organisations will fall under Scope 1 for others, if the pertinent emission sources are owned or controlled by the company (as defined under the organisational boundaries).

Under government guidance (MfE 2019), the different emission sources under the three scopes for a typical organisation are defined as follows:

Scope 1 Direct GHG emissions: defined as 'direct GHG emissions from sources that are owned or controlled by the organisation'.

- Stationary combustion.
- Transport fuels.
- Refrigerant use.

Scope 2 Indirect GHG emissions: defined as 'emissions from the consumption of electricity, steam, or other sources of energy generated upstream from the organisation'.

- Purchased electricity.

Scope 3 Other indirect GHG emissions: defined as 'emissions that are a consequence of the operations of an organisation, but are not directly owned or controlled by the organisation'.

- Transmission and distribution losses from purchased electricity.
- Air travel (domestic and international).
- Rental cars.
- Taxis.
- Accommodation.
- Freight transport.
- Water supply and wastewater treatment.
- Waste.

The calculations in this report are for gross emissions. The ORC does not have any agriculture, forestry or other land use emission factors or removal mechanisms.

Reporting Boundaries & Exclusions

This report has undertaken analysis of all of ORC's services and facilities. The *ISO 14064-1: 2018 standard* allows exclusions of direct or indirect emissions, which are not material or whose quantification would not be technically feasible or cost effective. This includes emissions that are estimated to be *de minimus*, being well below the 5% threshold of the entire inventory.

In line with the operational control consolidation approach, emissions that result from operations that are completely outside of the ORC's day-to-day management are excluded. This exclusion helps avoid the potential for double counting of emissions. Double counting refers to the possibility of two separate entities including the same emissions in their respective inventories.

The following activities have not been included in this report:

- Scope 1. Transport Fuels (public transport): The Council is responsible for public passenger transport (buses) in Dunedin and Queenstown. However, these services are contracted out to a private company.
- Scope 1. Refrigerants use: there are no significant emissions from unintentional leaks and spills from refrigeration units, air conditioners and heat pumps.
- Scope 3. Water supply and wastewater treatment: there is no available data on water usage.

In order to improve the completeness of reporting, it is recommended that the ORC undertake the following to improve records and data for subsequent GHG inventories:

✓ Obtain monthly records from water providers on the volume of water supplied to ORC offices and facilities.

Report Layout

This report is in three sections:

- **Section 1:** Outlines the GHG emissions and removals, with explanatory details on the activity data and emissions factors.
- **Section 2:** Provides more technical details on the methodology of how the activity data has been calculated and details the figures relating to calculations. This section is critical in ensuring that subsequent inventories are conducting using the same methodology.
- **Section 3:** Details the proposed action plan for lowering emissions. This includes a full list of recommendations across all activity areas, timeframes, the likely impacts on emissions, and organisational requirements.

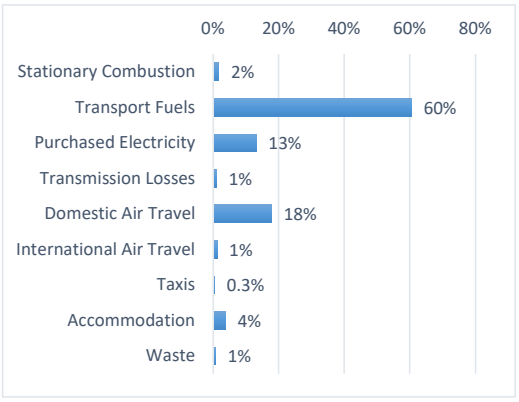
Gross Emissions

The total gross carbon dioxide equivalents for the ORC are **578 tonnes (577,928 kilograms)**:

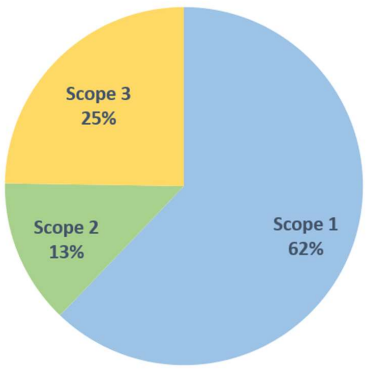
Scope	Activity	Tonnes				Percentage
		Total $CO_{2\text{-}e}$	$CO_{2\text{-}e}$	CH_4	N_2O	
Scope 1	Stationary Combustion	10	10	0.0	0.0	2%
Scope 1	Transport Fuels	349	343	0.7	5.9	60%
Scope 2	Purchased Electricity	76	72	3.4	0.7	13%
Scope 3	Transmission Losses	6	5	0.3	0.0	1%
Scope 3	Domestic Air Travel	103	101	0.4	1.5	18%
Scope 3	International Air Travel	7	7	0.0	0.0	1%
Scope 3	Taxis	2	2	0.0	0.0	0.3%
Scope 3	Accommodation	22	n/a	n/a	n/a	4%
Scope 3	Waste	4	n/a	4.0	n/a	1%
	Totals	**578**	**540**	**9**	**8**	

In respect to scope: the most significant emissions are associated with Scope 1 emissions (direct emissions) account for the largest proportion of emissions at 62%, followed by Scope 3 (other indirect emissions) at 25%, and Scope 2 (indirect emissions) at 13%.

In terms of activities: transport fuels are by far the most significant emissions, representing 60% of all the Council's emissions, followed by domestic air travel at 18%, and purchased electricity at 13%.



Emissions by Activity (Percentage)



Emissions by Scope (Percentage)

Emission Source Methodology

This following table provides a summary of the methodology and data sources for calculating GHG emissions. For full details see Section 2.

Scope	Category	Emissions Source	Data Source	Methodology
1	Stationary Combustion	Boilers for heating at Stafford Street.	Fuel summary invoices.	Kilowatt (kWH) hour of natural gas purchased.
1	Transport Fuels	Fleet of 59 vehicles and plant (tractor, motorcycles, quad bikes, utility vehicles).	Fuel summary invoices; Expense claims (purchased fuel/ mileage).	Calculations used fuel data for vehicles in the majority of cases (litres); in a few cases kilometres travelled were utilised.
2	Purchased Electricity	Electricity consumed in offices, depots and pumping stations.	Electricity supplier invoices.	Actual energy use: kilowatt hour (kWh) for the office.
3	Transmission and Distribution Line Losses	Electricity consumed.	Electricity supplier invoices.	Actual energy use: kilowatt hour.
3	Air Travel	Domestic and international flights with radiative forcing.	Flight invoices; Expense claims.	Passenger kilometre and class of travel.
3	Taxis	Average between the Diesel 1600–2000 cc and the 2000–3000 cc classes within the 2010-2015 fleet range.	Invoice records showing dollars spent; Expense claims.	Cost of journey converted to kilometres, using an average of $3 per kilometre.
3	Accommodation	Nights' accommodation.	Travel records; Expense claims.	Location and number of nights stayed in hotels.
3	Waste	Waste produced in the offices.	Number of skips collected.	Estimated kilograms of waste.

Notes:

- *Actual emissions in this section are in tonnes and are rounded to one decimal place, unless the number is significantly small. Sensitivity analysis calculations, which is conducted to show how reducing certain activities will impact emission, utilise a combination of tonnes and kilograms.*
- *The emission factors for fuels, including those utilised in purchased electricity, do not incorporate emissions associated with the extraction, production and transport of the fuels used in the production of electricity or for vehicle use.*

SECTION 1: Greenhouse Gas Emissions

The following sections provide results for greenhouse gas emission across each scope, along with initial recommendations that the ORC may consider in order to reduce emissions further. An action plan, which provides details for all recommendations is presented in section 3.

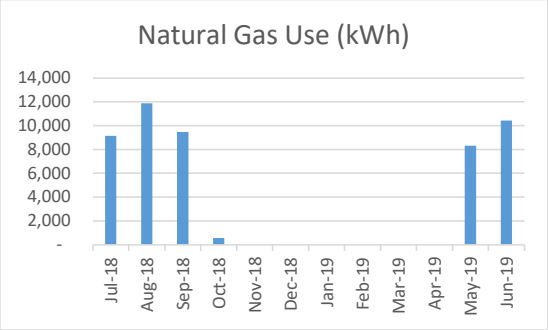
Overall general recommendations are for the ORC to:

- ✓ Make data and the findings in this report available to staff, so they can understand ORC's emissions and their contribution to them.
- ✓ Introduce an educational and awareness raising programme for ORC staff, focused on reducing emissions from individual's day-to-day activities.
- ✓ Undertake future emissions inventories to track and compare progress over time.
- ✓ Develop a low-carbon procurement strategy, purchasing goods and services that reduce overall life-cycle carbon emissions.

Scope 1. Emissions

Stationary Combustion of Fuels

Stationary combustion emissions result when fuels are burnt in a fixed unit or asset, such as heaters, generators, and boilers, which generate heat, energy and hot water. The ORC utilises boilers to provide heating in the main office (Stafford Street), solely in the winter months:



A total of 49,790 kilowatt hour (kWh) of natural gas were utilised in stationary combustion, resulting in **9.7 tonnes** of carbon dioxide equivalent:

Emission Source: Stationary Combustion	Activity Data (kWh) Natural Gas	Emissions (tonnes)			
		Total CO_{2-e}	CO_2	CH_4	N_2O
Natural Gas Total	**49,790**	**9.7**	**9.7**	**0.02**	**0.005**

Recommendations:

- ✓ Ensure that boilers are regularly tuned and maintained, and that pipes and insulation checked.

Transport Fuels

Greenhous gas emissions from vehicles depend on the amount of fuel that is consumed. When fuel is burnt in a vehicle the reaction results in the release of carbon dioxide, along with other compounds that include nitrous oxides and sulphide. Different fuels have different Global Warming Potentials, with diesel vehicles resulting in higher emissions than petrol driven vehicles.

The ORC maintained a fleet of 59 vehicles, predominantly four-wheel drive, with a number of vehicles being replaced during the course of the year. At the start of the reporting period the fleet comprised of 50 diesel and 9 petrol vehicles (85% and 15% respectively). During the course of the year there has been a transition to a higher proportion of diesel vehicles in the fleet, with 58 using this fuel compared to just one petrol vehicle (98% diesel and 2% petrol). The make up of the fleet displays the reliance on four-wheel drive vehicles to negotiate challenging terrain and winter driving conditions. Although, it must be noted that diesel results in approximately 10% more emissions than petrol. In addition to vehicles the ORC also has a number of motorcycles, quad bikes, a tractor, and other utility vehicles.

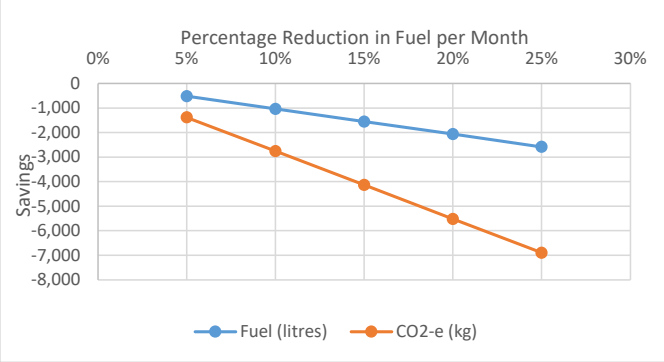
In addition to the ORC's fleet, expense claims are incurred for transport fuels from staff, councillors, consultants and contractors. These claims are either for actual fuel used or kilometres travelled.

The ORC's total emissions from transport fuels were **349.4 tonnes** of carbon dioxide equivalent:

Emission Source: Transport Fuels	**Activity Data**	**Emissions (tonnes)**			
		Total $CO_{2\text{-}e}$	**CO_2**	**CH_4**	**N_2O**
Fuel Data & Expense Claims (Litres)					
Diesel	114,203	307.2	302.6	0.4	4.8
Regular Petrol	8,648	21.2	20.3	0.2	0.7
Premium Petrol	2,007	4.9	4.7	0.1	0.2
Sub-Total (litres)	***124,859***	***333.3***	***327.7***	***0.7***	***5.7***
Expense Claims (Kilometres)					
Diesel	54,711	14.8	14.6	0.02	0.2
Regular Petrol	4,758	1.3	0.3	0.00	0.0
Sub-Total (Kilometres)	***59,469***	***16.0***	***14.9***	***0.02***	***0.2***
Transport Fuels Total		**349.4**	**342.5**	**0.72**	**5.9**

Note that the reason that the emission weight is higher than the starting weight of the fuel, is that through the combustion process oxygen is added to carbon to create carbon dioxide.

Sensitivity Analysis: ORC uses an average of 10,329 litres of transport fuels every month (this refers to data from fuel records and does not include any expense claims), with 92% of all fuel use being diesel. Given that transport fuels have high emissions factors, reducing the volume of transport fuel will result in correspondingly higher reductions in carbon dioxide equivalent. As displayed in the following graph, even a small monthly reduction of 5% in ORC's regular vehicle fuels usage (516 litres) would save 1.4 tonnes of carbon dioxide equivalent per month, while a 25% lowering (2,582 litres) would save 6.9 tonnes per month:



Changing diesel vehicles to petrol will also result in a reduction in emissions, as diesel has higher emission factors than petrol. Based on all litres of fuel use recorded throughout the year, a 5% shift from diesel to petrol (while maintaining the same overall level of litres of transport fuels) would save 1.4 tonnes of carbon dioxide equivalent per year. A 15% shift to petrol would save 4.1 tonnes, while a 25% shift would save 6.8 tonnes of carbon dioxide equivalent per year.

Transport Fuels Recommendations:

Face-to-face meetings are clearly an important way to effectively reach organisational goals and continued vehicle use will be required as a result. Although, the impact of COVID-19 on interactions has started to "normalise" virtual meetings. The following actions will help reduce the emissions from transport fuels:

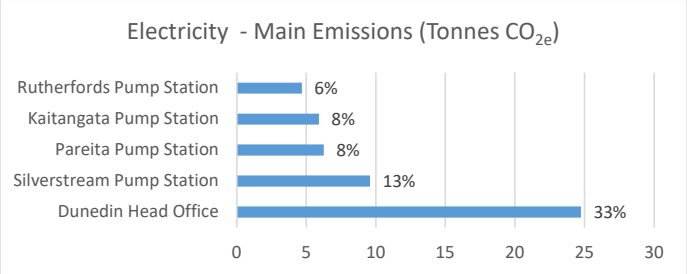
- ✓ Where appropriate, encourage staff to use alternative, low carbon, transport options for travelling to work and for work journeys (walking, cycling, public transport, pool cars, and moving away from single occupancy vehicle journeys).
- ✓ Use videoconferencing/ teleconferencing whenever feasible, to reduce the need to undertake physical journeys.
- ✓ Ensure fleet cars are regularly serviced and maintained to ensure they are running as efficiently as possible.
- ✓ Consider fitting driver tracking systems, which record high Revolutions Per Minute (RPMs), harsh braking, accelerating, sharp cornering and speeding.
- ✓ Educate staff on driving habits to ensure that cars are driven effectively.
- ✓ Determine fleet requirements for diesel powered vehicles.
- ✓ Transition the vehicle fleet to small engine vehicles/ electric cars/ hybrids.

Scope 2. Emissions

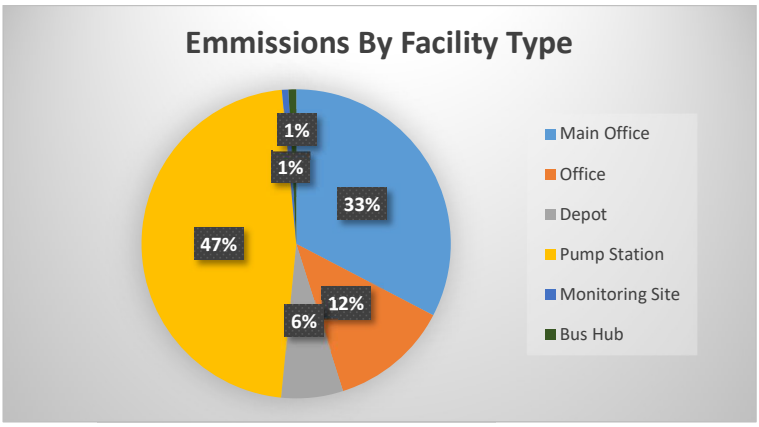
Purchased Electricity

These are indirect emissions from energy, consumed in owned or controlled equipment by ORC, but generated by another company. Emissions are calculated from the total amount of purchased kilowatt hour (kWh).

The ORC's main office at Stafford Street accounts for 33% of all purchased electricity emissions, utilising 253,320 kWh and producing 24.7 tonnes of carbon dioxide equivalent. The other facilities, which include depots and pumping stations, utilised 522,395 kWh, resulting in 51 tonnes of carbon dioxide equivalent. The top five emitters within specific offices and facilities were as follows:



By facility type, pumps stations were the biggest emitters and users of electricity, followed by the main office, other offices, depots, bus hubs and monitoring sites:



A total of 775,715 kWh was utilised across all offices and facilities, resulting in **75.8 tonnes** of carbon dioxide equivalent.

Emission Source: Purchased Electricity	Activity Data (kWh)	Emissions (tonnes)			
		Total CO_{2-e}	CO_2	CH_4	N_2O
Main Office	253,320	24.7	23.6	1.11	0.22
Facilities	522,395	51.0	48.7	2.29	0.45
Electricity Total	**775,715**	**75.8**	**72.3**	**3.41**	**0.67**

Sensitivity Analysis: Reducing electricity usage through energy saving initiatives in the main office at Stafford Street would result emissions savings, with current electricity usage being 253,320 kWh and 24.7 tonnes of carbon dioxide equivalent. A 5% reduction in ORC's electricity usage at the main office (12,666 kWh) would save 1.2 tonnes of carbon dioxide equivalent, while a 25% reduction in electricity (63,330 kWh) would save 6.2 tonnes of carbon dioxide equivalent:

Reduction in Usage	Electricity Savings (kWh)	CO_{2e} Savings (kg)
5%	-12,666	-1,237
10%	-25,332	-2,475
15%	-37,998	-3,712
20%	-50,664	-4,950
25%	-63,330	-6,187

Purchased Electricity Recommendations:

- ✓ Develop awareness raising initiatives to increase staff awareness, improving their daily habits in relation to energy use.
- ✓ Undertake an energy audit and develop a strategy and actions for lowering energy requirements in the ORC's office and facilities. For example:
  - Replace desktop computers with laptops (laptops are 50-80% more efficient than personal computers).
  - Set equipment to switch to sleep mode (this can save 50% of energy use for computers).

Scope 3. Emissions

These indirect emissions are a consequence of the activities of ORC, but are not owned or controlled by the organisation itself.

Transmission and Distribution Line Losses for Purchased Electricity

This emission factor accounts for emissions from the additional generation, which is needed to compensate for electricity lost in the transmission and distribution network, resulting from inefficiencies in the grid.

The calculations in this report were based on a total of 775,715 kWh and resulted in a total of **5.7 tonnes** of carbon dioxide equivalent.

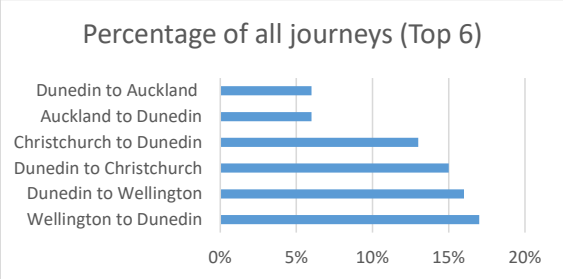
Emission Source: Transmission Losses	Activity Data (kWh)	Emissions (tonnes)			
		Total CO_{2-e}	CO_2	CH_4	N_2O
Main Office	253,320	1.9	1.8	0.08	0.002
Facilities	522,395	3.9	3.7	0.17	0.003
Transmission Total	**775,715**	**5.7**	**5.5**	**0.26**	**0.005**

Air Travel

Air travel emissions are based on the total distance travelled and on the area of the plane that each passenger occupies. If a plane is comprised totally of business-class or premium economy seats, as opposed to more densely packed economy class seats, this means that fewer passengers can fly. Therefore, business class and premium economy travel incur higher emissions.

Domestic Flights

The ORC undertook a total of 1,181 domestic flights, across 62 different flight routes. As shown in the graph Wellington to Dunedin was the most frequented route (17% of all domestic flights). All domestic flights were in economy class.



These domestic flights resulted in 630,597 passenger kilometres of travel (pkm) and **103 tonnes** of total carbon dioxide equivalent.

Emission Source: Domestic Air	Activity Data (pkm)	Emissions (tonnes)			
		Total CO_{2-e}	CO_2	CH_4	N_2O
Jet Aircraft (e.g. Airbus A320)	396,864	53.2	52.4	0.2	0.8
Medium Aircraft (e.g. Aerospatiale ATR 72)	233,733	49.8	49.1	0.2	0.7
Domestic Air Total	**630,597**	**103.0**	**101.5**	**0.4**	**1.5**

Sensitivity Analysis: Reducing the number of domestic flights would result in significant savings of carbon dioxide equivalent. As displayed in the following table, a 5% in ORC's domestic flights (a reduction of 31,530 pkm) would save 5.2 tonnes of carbon dioxide equivalent, while a 25% reduction in flights within New Zealand (a reduction of 157,649 pkm) would save 25.8 tonnes of carbon dioxide equivalent:

Reduction in Flights	Domestic Air Savings (pkm)	CO_{2-e} Savings (kg)
5%	-31,530	-5,179
10%	-63,060	-10,326
15%	-94,590	-15,472
20%	-126,119	-20,619
25%	-157,649	-25,766

These calculations were based on the current mix of flights that utilise jet aircraft and medium sized planes (63% of pkm using jet aircraft and 37% using medium sized planes).

International Flights

The ORC undertook a total of 11 short haul flights, of less than 3,700 kilometres, predominantly between New Zealand and Australia. All short haul flights were in economy class. These short haul flights totalled 19,022 passenger kilometres (pkm) and resulted in 3 tonnes of carbon dioxide equivalent.

A total of 2 long haul flights (greater than 3,700 kilometres) were made between Australia and the USA. Both of these flights were in economy class. These long haul flights totalled 22,404 pkm and resulted in 3.7 tonnes of carbon dioxide equivalent.

All 13 international flights, short haul and long haul, resulted in a total of 41,426 pkm and **6.7 tonnes** of total carbon dioxide equivalent.

Emission Source: International Air	Class	Activity Data (pkm)	Emissions (tonnes)			
			Total CO_{2-e}	CO_2	CH_4	N_2O
Short Haul	Economy	19,022	3.0	3.0	0.0002	0.019
Long Haul	Economy	22,404	3.7	3.6	0.0002	0.022
Total		**41,426**	**6.7**	**6.7**	**0.0004**	**0.041**

Domestic and international air travel combined resulted in 672,023 pkm and just under **109.7 tonnes** of total carbon dioxide equivalent.

Emission Source: All Air Travel	Activity Data (pkm)	Emissions (tonnes)			
		Total CO_{2-e}	CO_2	CH_4	N_2O
Domestic	630,597	102.9	101.5	0.39	1.49
International	41,426	6.7	6.7	0.00	0.04
Air Total	**672,023**	**109.6**	**108.1**	**0.39**	**1.54**

Air Travel Recommendations:

- ✓ Evaluate and where possible reduce the number of staff that need to travel to meetings in other parts of the country. Post COVID-19 increased usage and familiarity with web-based video conferencing should facilitate these changes.
- ✓ Whenever feasible, continue to utilise economy class in international travel, noting the significantly higher emission associated with premium economy and business classes.
- ✓ Utilise carbon offset schemes for air travel, particularly for international travel.

Taxis

Taxis are predominantly used for staff to travel to and from domestic airports. A total of $25,093 was spent on taxi travel. These taxi trips resulted in an estimated 8,364 kilometres of travel (based on $3 per kilometre) and emissions totalling **1.9 tonnes** of carbon dioxide equivalent.

Emission Source: Taxis	Activity Data (Dollars Spent)	Emissions (tonnes)			
		Total $CO_{2\text{-}e}$	CO_2	CH_4	N_2O
Taxis Total	**25,093**	**1.88**	**1.83**	**0.003**	**0.03**

Taxis Recommendations:

- ✓ Ensure that staff members coordinate travel and share taxis whenever possible.
- ✓ Utilise taxi companies with low emission policies whenever possible.[1]

Accommodation

According to the United Nations World Tourism Organization, the hotel industry accounts for approximately 1% of global emissions. Prior to the impact of COVID-19 this proportion of emissions was set to increase. The ORC utilised accommodation both domestically and internationally. Emissions were calculated using the Cornell Hotel Sustainability Benchmarking Index (CHSB) Tool (Ricaurte and Jagarajan 2019), which is the hotel industry's largest annual benchmarking of energy, water, and carbon.

A total of 1,736 nights of accommodation were incurred within New Zealand, resulting in 21.4 tonne of carbon dioxide equivalent. A total of 9 nights of accommodation were incurred internationally (5 in Australia; 4 in the USA), resulting in 0.4 tonnes of carbon dioxide equivalent. This resulted in a total of 1,745 nights' accommodation and **21.8 tonnes** of carbon dioxide equivalent:

Emission Source: Accommodation	Activity Data (Nights)	Emissions (tonnes)
		Total $CO_{2\text{-}e}$
New Zealand	1736	21.4
Australia	5	0.3
USA	4	0.1
Accommodation Total	**1745**	**21.8**

Accommodation Recommendations:

- ✓ Evaluate and where possible reduce the number of staff that need to travel.
- ✓ Identify hotel chains and companies with a low carbon footprint.[2]

[1] Note that future inventories will not pick up any emissions savings from taxi companies with green fleets, as calculations use default emission factors.

[2] Note that emissions savings from a low-carbon hotel will not be picked up in future inventories, as calculations utilise average emission factors based on country.

Waste

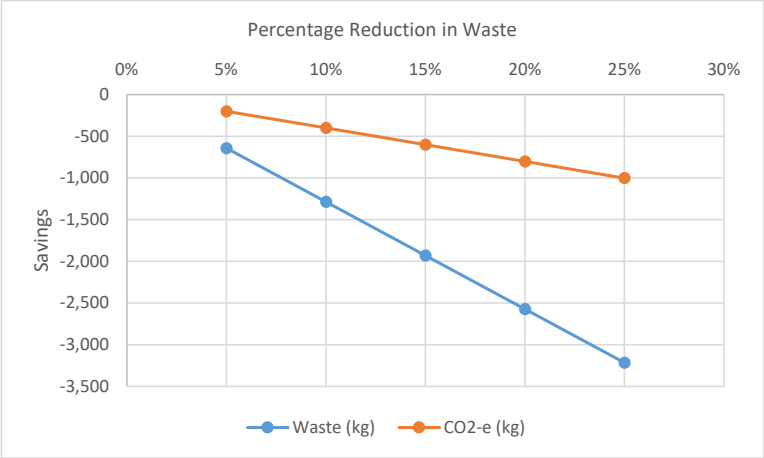
Waste disposal emissions result from the disposal of materials at landfill. The anaerobic decomposition of organic-based waste (e.g. food waste and paper) in landfills generates methane, a powerful greenhouse gas (methane is considered to have a global warming potential that is 21 times higher than carbon dioxide). The ORC's general / office waste is sent to Green Island Landfill, which has landfill gas collection and energy generation systems in place. The ORC produces an estimated total of 12,870 kilograms of general/ office waste during the year. The exact composition of this waste is not known.

Recyclable material (paper, plastics, metals and glass) are considered inert, because their decomposition does not directly produce GHG emissions. An estimated total of 8,996 kilograms of cardboard and 13,246 kilograms of paper were diverted from landfill by the ORC. The separation of Council waste and diversion of recyclable material has saved an estimated 8.2 tonnes of emissions and has provided a contribution to the principles of the circular economy, by keeping materials in circulation. It must be noted that this inventory is not a full life-cycle assessment, so this report does not include an analysis of life-cycle emissions for waste products.

A total of 12,870 kilograms (12.9 tonnes) of waste disposed of by ORC resulted in emissions that totalled **4 tonnes** of carbon dioxide equivalent:

Emission Source: Waste	Activity Data (kilograms)	Emissions (tonnes)			
		Total $CO_{2\text{-}e}$	CO_2	CH_4	N_2O
Unknown Composition					
Office Waste	6,435	2.45	n/a	2.45	n/a
General Waste	6,435	1.56	n/a	1.56	n/a
Total	**12,870**	**4.01**	**n/a**	**4.01**	**n/a**

Sensitivity Analysis: Reducing the amount of waste sent to landfill, either through reduction in the generation of waste or increasing diversion to recycling, can result in some modest reductions in carbon dioxide equivalent. The following graph displays how a reducing waste by 5% (644 kg) saves 200 kilograms of carbon dioxide equivalent, while a 25% reduction in waste (3,218 kg) will save 1,002 kilograms of carbon dioxide equivalent.



Waste Recommendations:

- ✓ Reduce paper use, favouring digital forms of communication whenever possible.
- ✓ Encourage staff to purchase products that utilise recycled content in packaging.
- ✓ Ensure all staff have access to an advanced waste diversion system of bins to facilitate recycling and composting.
- ✓ Undertake an analysis of waste using the Solid Waste Analysis Protocol to determine the exact volume and composition of ORC's waste streams.

SECTION 2: Methodology

Methodological Overview

This section provides an audit trail of how emissions have been calculated across each emissions source. This information will be important for any future GHG inventories that the ORC undertakes. The consistent application of accounting approaches, inventory boundary, and calculation methodologies are essential for tracking, assessing and reporting on GHG emissions over time. If there are any future changes in the inventory boundary, methods, data or any other factors affecting emission estimates, they need to be transparently documented and justified.

GHG emissions sources were identified with reference to the methodology described in the GHG Protocol and ISO 14064-1: 2018 standards. In line with the reporting requirements for Scope 1 emission sources, the GHG emissions for carbon dioxide, methane and nitrous oxide are reported separately, as well as the total carbon dioxide equivalent. Carbon dioxide emission factors are based on the carbon and energy content of a fuel. Therefore, these emissions remain constant irrespective of how a fuel is combusted. Non-carbon dioxide emissions (methane and nitrous oxide) and emission factors depend on the way the fuel is combusted. To reflect this variability uncertainty estimates are provided for scope 1 emission factors, which have been sourced from the Ministry for the Environment (2019).

Identification of emissions sources and activity data was undertaken via communications with ORC staff, using established databases and information sources. Emission Factors have been sourced using best available recommendations, predominantly obtained from the Ministry for the Environment, in order to ensure that they are the most applicable for a New Zealand context.

Notes: all emissions in this section are in kilograms, unless otherwise stated. Numbers associated with emission factors are typically rounded to two or three decimal places, unless the number is significantly small. Consequently, numbers may not always add up due to rounding. The kg CH_4 and kg N_2O figures are expressed in kg $CO_{2\text{-}e}$.

Total Emissions Summary

The total gross carbon dioxide equivalents for the ORC are **577,928 kilograms**:

Scope	Activity	Data Used	Kilograms			
			Total $CO_{2\text{-}e}$	$CO_{2\text{-}e}$	CH_4	N_2O
Scope 1	Stationary Combustion	49,790 kWh	9,709	9,659	20	5
Scope 1	Transport Fuels	124,859 litres[3]	349,360	342,540	721	5,888
Scope 2	Purchased Electricity	775,715 kWh	75,787	72,297	3,405	668
Scope 3	Transmission Losses	775,715 kWh	5,740	5,477	258	5
Scope 3	Domestic Air Travel	630,597 pkm	102,965	101,470	385	1,495
Scope 3	International Air Travel	41,426 pkm	6,695	6,654	0	41
Scope 3	Taxis	$25,093	1,882	1,832	3	25
Scope 3	Accommodation	1,745 nights[4]	21,781	n/a	n/a	n/a
Scope 3	Waste	12,870 kg	4,009	0	4,009	0
	Totals		**577,928**	**539,928**	**8,803**	**8,127**

Scope 1. Methodology

Stationary Combustion of Fuels Methodology

The ORC uses stationary combustion in the following facilities:

- Main Office, Stafford Street: 47,790 kilowatt hour (kWh) in boilers, which utilise natural gas for heating in the winter months (supplier: Genesis Energy).

No transmission and distribution losses were calculated for this natural gas. Calculations used emission factors for common fuels used for stationary combustion in New Zealand, sourced by the Ministry of Business, Innovation and Employment (MBIE):

Emission Source: Stationary Combustion	Activity Data	Emission Factors/ Emissions (kg)				
		Total $CO_{2\text{-}e}$	CO_2	CH_4	N_2O	Uncertainty kg $CO_{2\text{-}e}$/unit
Natural Gas	*kWh*	0.195	0.194	0.000405	0.0000966	2.4%
	49,790	9,709	9,659	20	5	
Totals	**49,790**	**9,709**	**9,659**	**20**	**5**	

[3] The transport fuel calculations also included 59,469 kilometres from expense claims.
[4] Taxi travel distance estimated to be 8,364 kilometres.

Transport Fuels Methodology

The calculations in this report utilised data from fuel provider records and expense claims. The fuel records are broken down to vehicles and plant. There were 59 vehicles at the start and end of the reporting period, predominantly four-wheel drive (e.g., Mitsubishi Triton). The plant comprised of one tractor, 11 motorcycles, 9 quad bikes, and 2 utility vehicles at the beginning of the reporting period. A total of 2 motorcycles and 2 quad bikes were disposed of during the course of the year. The vehicles and plant used the following litres of fuel:

Fuel	Vehicles	Plant	All
Diesel	113,245	699	113,944
Regular Petrol	6,074	1,919	7,993
Premium Petrol	2,007	-	2,007
Totals	**121,326**	**2,618**	**123,944**

Expense claims for staff are generally submitted from fuel purchased and include the type of fuel, as well as the dollar amount. These included 259 litres of diesel and 655 litres of regular petrol. Expense claims for councillors and consultants/ contractors are generally submitted as mileage claims. These calculations utilised the actual kilometres travelled (a total of 44,072 kilometres for councillors and 15,397 kilometres for consultants/ contractors). Records do not stipulate fuel or vehicle type and it is recommended that future claims should include this information. In order to undertake emission calculations for these claims the existing data was examined on fuel records and fuel expense claims to determine the percentage split between diesel and petrol. As such, 92% of the total kilometres was deemed as diesel (54,711 kilometres) and 8% deemed as being petrol (4,758 kilometres).

The calculations utilised the default private car emission factors per km travelled for default age of vehicle and <3000 cc engine size. It must be noted that kilometre-based estimates of carbon dioxide equivalent emissions are less accurate than calculating emissions based on fuel-use data, due to variations in vehicle fuel efficiency and driving efficiency. The $CO_{2\text{-}e}$ per activity unit emission factors are derived by the Ministry of Business, Innovation and Employment using calorific values and incorporate relevant oxidation factors sourced from *The IPCC Guidelines for National Greenhouse Gas Inventories* (2006).

Emission Source: Transport Fuels	Activity Data	Emission Factors/ Emissions (kg)				Uncertainty kg $CO_{2\text{-}e}$/unit
		Total $CO_{2\text{-}e}$	CO_2	CH_4	N_2O	
Diesel	*Litre*	*2.69*	*2.65*	*0.00354*	*0.0422*	*0.9%*
	114,203	307,207	302,639	404	4,819	
Default Diesel	*Kilometre*	*0.27*	*0.266*	*0.0004*	*0.004*	*N/A*
	54,711	14,772	14,533	22	219	
Petrol – Regular	*Litre*	2.45	2.35	0.0276	0.0797	*1.8%*
	8,648	21,188	20,323	239	689	
Petrol – Premium	*Litre*	2.45	2.34	0.0277	0.0801	*1.8%*
	2,007	4,917	4,696	56	161	
Default Petrol	*Kilometre*	*0.268*	*0.257*	*0.003*	*0.009*	*N/A*
	4,758	1,275	328	1	0.01	
Totals		**349,360**	**342,540**	**721**	**5,888**	

Scope 2. Methodology

Purchased Electricity Methodology

The ORC has monthly records from its main supplier, Meridian Energy, for electricity usage in kWh for the main office and other facilities, which include depots, pump stations and bus hubs. This resulted in kWh and associated emissions for the following sites:

Installation	Type	Total kWh	CO_2e
Dunedin Head Office, 70 Stafford Street, Dunedin	Main Office	253,320	24,749
Silverstream Pump Station, Riverside Road, East Taieri, Dunedin	Pump Station	98,160	9,590
Pareita Pump Station, River/Wix Road, Balclutha	Pump Station	64,100	6,263
Kaitangata Pump Station, Clyde Terrace, Kaitangata	Pump Station	60,600	5,921
Rutherfords Pump Station, Centre Road, Inchclutha	Pump Station	48,000	4,690
Mill Creek Pump Station, Murray Road, East Taieri	Pump Station	43,000	4,201
Philip Laing House, 2nd Flr 144 Rattray Street, Dunedin	Office	39,760	3,885
Civil Defence building, 1/70 Stafford Street, Dunedin	Office	34,869	3,407
Balclutha Depot, 62 Hasborough Place, Balclutha	Depot	18,452	1,803
Henley Pump Station, 3 Riverbank Road North, Dunedin	Pump Station	15,965	1,560
Oamaru Office, 32 Ribble Street, Oamaru	Office	15,733	1,537
Taieri Depot, 173 Dukes Road North, North Taieri, Dunedin	Depot	11,243	1,098
Cromwell Depot, 16 Rogers Street, Cromwell	Depot	10,930	1,068
Barnego Pump Station, Cnr Holgate Rd & Barnego Rd, Balclutha	Pump Station	10,900	1,065
Scroggs Pump Station, Riverside Road, Mosgiel, Dunedin	Pump Station	10,004	977
Wanaka Depot, 185 Riverbank Road, Wanaka	Depot	9,400	918
Lake Ascog Pump Station, 700 Maungatua Road, West Taieri, Dunedin	Pump Station	6,270	613
Smith Road Pump Station, Smith Road, Inchclutha, Kaitangata	Pump Station	6,193	605
Dunedin West Side Bus Hub, 301 Moray Place, Dunedin	Bus Hub	4,695	459
Dunedin East Side Bus Hub, 15 Great King Street, Dunedin	Bus Hub	1,606	157
CBD Pump Station, Athlone Street, Alexandra	Pump Station	1,040	102
Leftbank Pump Station, Dunorling Street, Alexandra	Pump Station	60	6
Agricultural Building, 366 Fisher Lane, Galloway, Alexandra	Depot	0	0
Linger & Die Pump Station, Walton Street, Alexandra	Pump Station	0	0
Queenstown Office, Terrace Junction 1092 Frankton Road, Queenstown	Office	6,100	596
Air quality monitoring, 72 Factory Road, Mosgiel, Dunedin	Monitoring Site	2,812	275
Air quality monitoring, 1/5 Ventry Street, Alexandra	Monitoring Site	2,381	233
Roxburg Depot, 189 Scotland Street, Roxburg	Depot	122	12
Totals		**775,715**	**75,787**

The electricity for the Queenstown Office is paid to the landlord, with the data provided being kilo-volt-ampere (kVA), as opposed to kWh. The efficiency of the electrical system is not known. Therefore, in converting to kWh, calculations assumed 100% efficiency in the system and a power factor of one (noting that electrical systems are in reality never 100% efficient).

The electricity emission factor covers purchased electricity from a supplier who sources its electricity from the national grid. The emission factor for purchased electricity is derived from the net electricity generation data in *Energy in New Zealand* (MBIE 2016). This grid-average emission factor is based on the average grid mix of generation types. The emission factor accounts for the emissions from fuel combustion at thermal power stations and fugitive geothermal emissions. Renewable generation such as hydro, wind and solar has no associated combustion or fugitive GHG emissions, so these are considered to be carbon neutral. This emission factor also does not reflect the real-world factors that influence the carbon intensity of the grid such as time of year, time of day and geographical area.

Emission Source: Purchased Electricity	Activity Data	Emission Factors/ Emissions (kg)			
		Total $CO_{2\text{-}e}$	CO_2	CH_4	N_2O
Electricity Used	kWh	0.0977	0.0932	0.00439	0.000861
Main Office	253,320	24,749	23,609	1,112	218
Other Facilities	522,395	51,038	48,687	2,293	450
Electricity Used Total	**775,715**	**75,787**	**72,297**	**3,405**	**668**

Scope 3. Methodology

Transmission and Distribution Line Losses Methodology

The emissions factor is an average figure that makes no allowance for location of the end-user within the national grid, or other factors that may vary between individual consumers. The calculation in this report was based on the total electricity consumed (kWh):

Emission Source: Transmission Losses	Activity Data	Emission Factors/ Emissions (kg)			
		Total $CO_{2\text{-}e}$	CO_2	CH_4	N_2O
Electricity Used	kWh	0.0074	0.00706	0.000333	0.00000653
Main Office	253,320	1,875	1,788	84	2
Facilities	522,395	3,866	3,688	174	3
Electricity Used Total	**775,715**	**5,740**	**5,477**	**258**	**5**

Air Travel Methodology

To calculate emissions for domestic air travel, this report utilises data on the departure and destination airports of each journey. The distance travelled has been calculated using an online calculator (https://airport.globefeed.com).

For air travel emission factors, multipliers or other corrections may be applied to account for the GWP of emissions arising from aircraft transport at altitude. Radiative forcing helps organisations account for the wider climate effects of aviation, including water vapour and indirect GHGs. This is an area of active research, although the IPPC estimate that these other climate change impacts of aviation may be up to two to four times those of carbon dioxide alone. This report applies a recommended radiative forcing multiplier of 1.9 (Sausen et al 2005; CCC 2009).

Domestic flights: The ORC undertook a total of 1,181 domestic flights, across 62 different flight routes. These flights include travel undertaken by direct staff and by contractors. Calculations utilised activity data provided by the ORC's travel Agent (Orbit World Travel), as well as expense claims where staff had booked flights directly. It is important to note that some flights in the Orbit report are excluded from these calculations. This exclusion is due to the fact that the ORC is the lead agent in some projects, which means that the Council pays for the initial costs and then is subsequently reimbursed by other third parties for their share.

The ORC's travel data included details of the type of plane for each flight, which have been assigned the following classes:

- Airbus320: classed as a jet aircraft (large domestic aircraft – 70 plus seats).
- De Havilland Dash 8-300: classed as a medium aircraft (50 to 70 seats).
- Aerospatiale ATR 72: classed as a medium aircraft (50 to 70 seats).

As emission factors are based on fuel delivery data, it was not necessary to apply a distance energy uplift factor to account for delays/circling and non-direct routes.

Emission Source: Domestic Air Travel (With Radiative Forcing)	Activity Data	Emission Factors/ Emissions (kg)			
		Total $CO_{2\text{-}e}$	CO_2	CH_4	N_2O
Jet Aircraft	Passenger Kilometres	0.134	0.132	0.0005	0.002
Staff Travel	369,373	49,496	48,757	185	739
Contractor Travel	27,491	3,684	3,629	14	55
Medium Aircraft	Passenger Kilometres	0.213	0.21	0.0008	0.003
Staff Travel	176,951	37,691	37,160	142	531
Contractor Travel	56,782	12,095	11,924	45	170
Sub-Total Staff Travel	***546,324***	***87,187***	***85,917***	***326***	***1,270***
Sub-Total Contractor Travel	***84,273***	***15,778***	***15,553***	***59***	***225***
Total All Travel	**630,597**	**102,965**	**101,470**	**385**	**1,495**

International flights: The emission factors utilised in this report follow those published by the UK Department for Business, Energy & Industrial Strategy, which are deemed by the Ministry for the Environment to be the most suitable emission factors currently available (MfE 2016). The calculations incorporate a circle distance uplift factor to take into account non-direct routes between airports and delays/ circling. The UK Department for Business, & Industrial Strategy applies an eight percent uplift factor, based on analysis of UK flights. It must be noted that the figure of eight percent, is based on the analysis of flights arriving and departing from the UK. This figure is likely to be overstated in New Zealand (initial estimates from Airways New Zealand is that this figure is likely to be less than five per cent). However, in the absence of a New Zealand-specific figure these calculations take a conservative approach.

Emission Source: International Air Travel (With Radiative Forcing)	Activity Data	Emission Factors/ Emissions (kg)			
		Total $CO_{2\text{-}e}$	CO_2	CH_4	N_2O
Short Haul (<3,700 km)					
Economy Class	Passenger Kilometres	0.160	0.159	0.00001	0.001
	19,022	3,044	3,024	0.2	19
Long Haul (>3,700 km)					
Economy Class	Passenger Kilometres	0.163	0.162	0.00001	0.001
	22,404	3,652	3,629	0.2	22
Totals	**41,426**	**6,695**	**6,654**	**0.4**	**41**

Taxis Methodology

Based on expense claims, the ORC spent a total of $25,093 on taxi travel, which included $2,672 from expense claims and $22,421 via Orbit/ direct with taxi companies. The available data does not provide kilometres for each journey. Taxicharge have advised that since 2014 the price per kilometre has remained stable at $3, which results in an estimated 8,364 kilometres for the ORC. Separate calculations were undertaken based on known total dollars spent and estimated kilometres travelled. The results for both sets of activity data resulted in similar emissions.

According to the Motor Industry Association, the most common taxi vehicles are diesel, with the majority (62%) being in the <2000 cc and <3000 cc class and the average age of the taxi fleet being 8.6 years. Consequently, emission factors for taxis by distance use an average between the Diesel 1600–2000 cc and the 2000–3000 cc classes within the 2010-2015 fleet range.

Emission Source: Taxis	Activity Data	Emission Factors/ Emissions (kg)			
		Total $CO_{2\text{-}e}$	CO_2	CH_4	N_2O
Distance Travelled	Kilometres	0.224	0.220	0.0003	0.004
Distance Travelled Total	8,364	1,874	1,840	3	33
Dollars Spent	Dollars	0.075	0.073	0.0001	0.001
Dollars Spent Total	**25,093**	**1,882**	**1,832**	**3**	**25**

Accommodation Methodology

Emission factors for accommodation are obtained from the Cornell Hotel Sustainability Benchmarking Index (CHSB) Tool (Ricaurte and Jagarajan 2019). The factors are in carbon dioxide equivalents and are not available by gas type. The CHSB notes limitations with the unverified dataset, which include the fact that it is skewed towards upmarket and chain hotels, and that the results do not distinguish hotel amenities such as swimming pools. Although forty-eight nations were involved in the research, the majority of the dataset is focused on the United States.

Calculations utilised activity data provided by the ORC's travel Agent (Orbit World Travel), as well as expense claims where staff had booked accommodation directly. Records show that a total of 1,736 nights of accommodation were utilised within New Zealand, and 9 internationally, resulting in a total of 1,745 nights:

Emission Source: Accommodation		Emission Factor $CO_{2\text{-}e}$	Emissions (kg) $CO_{2\text{-}e}$
Location	**Nights**		
New Zealand	1736	12.3	**21,353**
Australia	5	65.1	326
USA	4	25.6	102
International Sub-Total	9		**428**
Total (Domestic & International)	**1745**		**21,781**

Waste Methodology

The exact volume of waste produced by the ORC is not recorded. The Corporate Services Team estimated that two skips, each with the individual capacity of 1,100 litres, are collected every week and that on average these are both three-quarters full. In order to determine the estimated weight a ratio of 1:0.15 was used to determine that if full each skip would contain an average weight of 165 kilograms of waste (Packaging Forum 2019).

In determining office solid waste emissions, it is preferable to know the composition of the waste, as it allows the use of more accurate emission factors for specific material types. However, the exact nature of the ORC's waste is not known. The calculation of emissions for wastes of unknown composition fall into two key categories: general waste and office waste. The office waste emission factor is higher than general waste, as it assumes that there will be a high level of paper in office waste. Although, paper is diverted for subsequent recycling, it is also highly likely that some paper will be present in ORC's residual waste streams. This will include paper from packaging sources or from people simply misplacing waste in the wrong collection receptacle. As such, the residual waste streams have been assumed to contain 50% general waste and 50% office waste.

The type of landfill influences the GHG conversion factor, with some landfills capturing the methane (CH_4) that is produced during the decomposition of waste. The emission factors for landfills that do not capture methane are significantly higher than for those with gas systems. The receiving landfill for ORC's waste, Green Island Landfill, has landfill gas collection and energy generation systems in place.

Emission Source: Waste (landfill gas recovery)	Activity Data	Emission Factors/ Emissions (kg)			
		Total $CO_{2\text{-}e}$	CO_2	CH_4	N_2O
Unknown Composition					
Office Waste	Kilograms	0.381	n/a	0.381	n/a
Office Waste	6,435	2,452	n/a	2,452	n/a
General Waste	Kilograms	0.242	n/a	0.242	n/a
General Waste	6,435	1,557	n/a	1,557	n/a
Total	**12,870**	**4,009**	**0**	**4,009**	**0**

The ORC diverts carboard and paper for recycling. One skip with a capacity of 1,100 litres is collected each week for cardboard and is typically three-quarters full. It is estimated that each skip would contain 173 kilograms of carboard, resulting in 8,996 kilograms of waste cardboard recycled each year.

Paper recycling bins are emptied when requested and are consequently always full. During the reporting year a 105 of the 240 litre bins and 5 of the 60 litre bins were collected. It is estimated that 240 litre bins when full will contain 40 kilograms of paper. A such, an estimated 4,250 kilograms of paper were recycled. As these waste streams are recycled, they are deemed to be inert and produce no emissions within the scope of this inventory. It is possible to account for emission associated with the distance travelled by these materials to waste transfer stations or recycling plants, using freight emission factors. However, there is a lack of data for undertaken these calculations.

It is also likely that any freight emissions are also negligible and would be deemed *de minimus*. Information on other recycled materials (e.g., glass, plastics, and metals) is not known.

If these waste streams were landfilled instead of recycled, then they would result in emissions, since paper will break down to produce methane. The following table provides details on the emissions that are saved as a result of recycling paper and cardboard:

Emission Source: Waste paper (landfill gas recovery)	Activity Data	Emission Factors/ Emissions (kg)			
		Total $CO_{2\text{-}e}$	CO_2	CH_4	N_2O
Known Composition					
Paper	Kilograms	0.620	n/a	0.620	n/a
Paper	4,250	2,635	n/a	2,635	n/a
Cardboard	8,996	5,578		5,578	
Paper/ Carboard	**13,246**	**8,213**		**8,213**	

SECTION 3: Action Plan

The following table summarises the recommended actions contained in each section of the report. This is a comprehensive list and the ORC may wish to prioritise the areas that the organisation wishes to focus on. The timeframes are deemed the following: short - within one year; medium - one to two years; long – three years plus. The impact refers to the ability to reduce overall emissions.

Measure	Timeframe	Impact	Organisational Requirements
General			
Obtain monthly records from water providers on the volume of water supplied to ORC offices and facilities.	Short > ongoing	N/A	Request from water providers monthly invoices and data.
Make data and the findings in this report available to staff, so they can understand ORC's emissions and their contribution to them.	Short > ongoing	Low	Presentation of greenhouse gas inventory to staff.
Introduce an educational and awareness raising programme for ORC staff, focused on reducing emissions from individual's day-to-day activities.	Short > ongoing	High	Minor costs for materials and facilitation; additional training, including staff inductions; staff time.
Undertake future emissions inventories to track and compare progress over time.	Medium > long	N/A	Costs for undertaking inventories; collation of activity data.
Develop a low-carbon procurement strategy, purchasing goods and services that reduce overall life-cycle carbon emissions.	Medium	N/A[5]	Development of strategy, identification of supply chains, and ongoing implementation.
Stationary Combustion			
Ensure that boilers are regularly tuned and maintained, and that pipes and insulation checked.	Medium	Low	Undertake energy audit and checks.
Transport Fuels			
Where appropriate, encourage staff to use alternative, low carbon, transport options for travelling to work and for work journeys (walking, cycling, public transport, pool cars, and moving away from single occupancy vehicle journeys).	Short > ongoing	High	Education and awareness raising; route optimisation for work journeys via use of GPS-based route finders; installation of bike racks at offices and i-SITE/ provision of bikes for staff.
Use videoconferencing/ teleconferencing wherever feasible to reduce the need to undertake physical journeys.	Short > ongoing	High	Installation of up-to-date and secure technology to facilitate remote meetings.

[5] Note that emissions savings from a low-carbon procurement strategy are unlikely to be picked up in future inventories, as the lifecycle of goods and services is not examined.

Measure	Timeframe	Impact	Organisational Requirements
Ensure fleet cars are regularly serviced and maintained to ensure they are running as efficiently as possible.	Short > ongoing	Low	Book vehicles in for regular full services; change oil at appropriate intervals; check tyre pressure regularly.
Consider fitting driver tracking systems, which record high Revolutions Per Minute (RPMs), harsh braking, accelerating, sharp cornering and speeding.	Medium > long	Low	Costs for purchase and installation of driver tracking systems.
Educate staff on driving habits to ensure that cars are driven effectively.	Short > ongoing	Low	Air conditioning should be used appropriately; reduce idle time when parked or stuck in traffic; Change gear earlier, not exploring the upper reaches of the rev range; braking earlier and slowing down will reduce wear and tear, while maintaining efficiency.
Determine fleet requirements for diesel powered vehicles.	Short > ongoing	Low	Assess the operational needs for four-wheel drive vehicles within the fleet and determine number of vehicles required.
Transition the vehicle fleet to small engine vehicles/ electric cars/ hybrids.	Medium > long	High	Transition the fleet over time, as vehicles become obsolete/ end of lease; costs for purchase of new vehicles.
Purchased Electricity[6]			
Develop awareness raising initiatives to increase staff awareness, improving their daily habits in relation to energy use.	Short > ongoing	Medium	Training; communications; and, general encouragement.
Undertake an energy audit and develop a strategy and actions for lowering energy requirements in the ORC's office and facilities.	Medium > long	Medium	Small contract for energy audit. Check the Energy Rating when purchasing/ leasing computer monitors, printers, copiers, and other electrical items; consider replacing desktop computers with laptops, which are 50% to 80% more efficient; switch off lights, shared equipment, monitors, etc; use sleep mode (this can save 50% of energy use in computers); unplug items from the wall when not in use; print only when necessary and use double sided printing when required (EECA 2019).

[6] Emission savings in purchased electricity will also have a knock-on impact on emission associated with transmission losses and distribution.

Measure	Timeframe	Impact	Organisational Requirements
Air Travel			
Evaluate and where possible reduce the number of staff that need to travel to meetings in other parts of the country.	Short > ongoing	High	Consider videoconferencing/ teleconferencing as alternatives to physical meetings. Post COVID-19 increased usage and familiarity with web-based video conferencing should facilitate these changes.
Whenever feasible, continue to utilise economy class in international travel, noting the significantly higher emission associated with premium economy and business classes.	Short > ongoing	High	The benefits of premium economy/ business class are understood in terms of staff being rested upon arrival and able to attend meetings immediately. However, if time is available, an additional night's accommodation in the destination country is less costly and if used in conjunction with economy travel will result in a significantly lower carbon alternative to premium travel.
Utilise carbon offset schemes for air travel, particularly for international travel.	Short > ongoing	High	Many airline companies, including AirNZ (FlyNeutral), offer carbon offset options with ticket purchases. These will incur some additional costs for travel.
Taxis			
Ensure that staff members coordinate travel and share taxis whenever possible.	Short > ongoing	Low	Ensuring that staff communicate about forthcoming journeys to allow for coordinated travel.
Utilise taxi companies with low emission policies whenever possible.[7]	Short > ongoing	Low	Identify suitable companies and establish supply agreements/ organisational policies, to utilise the increasing number of taxi companies throughout the country that have low carbon fleets.
Accommodation			
Evaluate and where possible reduce the number of staff that need to travel and stay overnight.	Short > ongoing	Low	Consider videoconferencing/ teleconferencing as alternatives to physical meetings.
Identify hotel chains and companies with a low carbon footprint.[8]	Short > ongoing	Low	Identify hotels that have low carbon policies in regard to their buildings and operations. Establish supply agreements.

[7] Note that future inventories will not pick up any emissions savings from taxi companies with green fleets, as calculations use default emission factors.

[8] Note that emissions savings from a low-carbon hotel will not be picked up in future inventories, as calculations utilise average emission factors based on country.

Measure	Timeframe	Impact	Organisational Requirements
Waste			
Reduce paper use, favouring digital forms of communication whenever possible.	Short > ongoing	High	Ensure that staff have access to suitable means of digital communication. It is noted that the use of paper in some circumstances is unavoidable.
Encourage staff to purchase products that utilise recycled content in packaging.	Short > ongoing	Medium	Education and awareness raising activities. Discussions with suppliers.
Ensure all staff have access to an advanced waste diversion system of bins to facilitate recycling and composting.	Medium	Medium	Provision of receptacles for recyclable materials and composting facilities.
Undertake an analysis of waste using the Solid Waste Analysis Protocol to determine the exact volume and composition of ORC's waste streams.	Medium	N/A	Small contract for a waste audit. Understanding the composition of waste will improve the accuracy of future inventories.

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7.6. Queenstown Lakes Appeals Update

Prepared for:	Council
Report No.	P&S1888
Activity:	Governance Report
Author:	Anita Dawe, Policy and Planning Manager
Endorsed by:	Gwyneth Elsum, General Manager Strategy, Policy and Science
Date:	25 November 2020

PURPOSE

[1] To update Council on ORC's involvement in appeals to the Queenstown Lakes District Plan.

EXECUTIVE SUMMARY

[2] The ORC appealed, or joined other appeals, on a wide range of topics related to the review of the Queenstown Lakes District Plan. Staff have been involved in mediation and Environment Court hearings over the last 12 months.

[3] Many of the appeals have now been successfully resolved and it is appropriate, with the release of Consent Memorandums and Environment Court decisions, to update Council.

RECOMMENDATION

That the Council:

1) ***Receives*** *this report.*

2) ***Notes*** *the progress on resolving appeals on the Queenstown Lakes District Plan.*

BACKGROUND

[4] The ORC has a role to ensure that its RPS is given effect to, through regional and district plans. In practice this means ORC, like other regional councils, submit on territorial authority plans and plan changes, and if required, also get involved in the appeals process.

[5] The Queenstown Lakes District Plan (QLDP) has been undergoing a review, in stages, since 2016. Much of the review so far has involved issues that ORC has an interest or requirement to be involved in or are matters that are directly relevant to giving effect to the Regional Policy Statement (RPS).

[6] Staff have been actively engaged in appeals for some time. Substantial progress has been made, hence this update.

ISSUE

[7] The integrity of the RPS is being maintained by ORC's involvement in the QLDP review, and its position in relation to appeals.

DISCUSSION

[8] ORC has lodged appeals to the QLDP and has joined other appeals as a section 274 party. The appeals cover a range of topics including managing natural hazards, transport, subdivision and lifestyle density, rezoning, and protection of Outstanding Natural Landscapes and Features from inappropriate use, and development.

[9] ORC's position on the appeals varies – sometimes our position supports that of Queenstown Lakes, but there are other times when our position differs, especially in relation to some of ORC's operational functions, such as natural hazard works.

[10] The table included as attachment 1 outlines all the relevant appeals that have had resolution, and details ORC's involvement in those. The outcomes achieved have been enhanced by ORC's involvement, which is at times, a considerable amount of work. In addition to Council staff time, involvement has included landscape architects, ecologists, natural hazards experts, transport planners, planners and legal counsel.

OPTIONS

[11] This is not relevant.

CONSIDERATIONS

Policy Considerations

[12] ORC's involvement in the QLDP appeals is to ensure that the District Plan review is consistent with and gives effect to, the Regional Policy Statement.

Financial Considerations

[13] There are no financial considerations as a result of this paper as this work programme is carried out within the existing 2020/21 Annual Plan budget. However, it is important to note that ORC's involvement in territorial authority plan reviews is a significant work programme, especially with our two major territorial authorities undertaking reviews in similar time periods which stretches staff resources.

Significance and Engagement

[14] This is not relevant to this paper.

Legislative Considerations

[15] Section 62 of the RMA outlines the role of the RPS. This includes outlining the local authority responsible for particular functions. ORC's involvement in appeals is to ensure these functions are properly implemented.

Risk Considerations

[16] There is considerable risk to the integrity of the RPS if ORC was not involved in territorial authority plans. This risk is mitigated by our submissions to the plans, and then subsequent involvement in appeals processes.

NEXT STEPS

[17] The next steps are for staff to continue to determine involvement in the QLDP review, consistent with the ORC's policy position as detailed in the RPS.

ATTACHMENTS

1. ORC QLDC Appeals Table for Council [**7.6.1** - 11 pages]

Appeal Topic	Topic Outcome	RPS 2019 and pRPS 2019 Alignment
Topic 1: A Resilient Economy	Interim Environment Court Decision regarding: • Chapter 3 Strategic Direction This topic set out the over-arching strategic direction for the management of growth, land use and development in a manner that ensures the sustainable management of the Queenstown Lakes District's special qualities. There are some un-resolved appeal points relating to the management of regionally significant infrastructure that are currently with the Court. ***ORC's involvement in the Environment Court process*** assisted in ensuring that provisions of the PDP balanced both the economic development direction and the landscape protection required by the provisions of the operative and proposed regional policy statements.	Gives effect to/ has regard to the following RPS 2019 and pRPS 2019 objectives and policies: - Objective 1.2 - Objective 3.1 - Objective 3.2 - Objective 5.3 - Objective 5.4 - Policy 1.1.1 Economic wellbeing - Policy 3.1.11 Natural features, landscapes, and seascapes - Policy 3.1.12 Environmental enhancement - Policy 3.2.4 Managing outstanding natural features, landscapes and seascapes - Policy 3.2.6 Managing highly valued natural features, landscapes and seascapes - Policy 5.3.3 Distribution of commercial activities - Policy 5.3.6 Tourism and outdoor recreation
Topic 2: Rural Landscapes	Interim Environment Court Decision regarding: • Chapter 3 Strategic Direction • Chapter 6 Landscapes – Rural Character This topic sets the strategic direction for managing the outstanding natural landscapes and features, and rural character landscapes. This chapter elaborates on the strategic direction in Chapter 3 and sets out the objectives and policies for managing the spatial location and layout of urban development within the District.	Gives effect to/ has regard to the following RPS 2019 and pRPS 2019 objectives and policies: - Objective 1.2 - Objective 3.1 - Objective 3.2 - Objective 5.4 - Policy 1.1.1 Economic wellbeing - Policy 3.1.11 Natural features, landscapes, and seascapes - Policy 3.1.12 Environmental enhancement - Policy 3.2.4 Managing outstanding natural features, landscapes and seascapes - Policy 3.2.6 Managing highly valued natural features, landscapes and seascapes

	There are some un-resolved appeal points relating to the scheduling of landscape values in priority areas within the district. As part of this process further technical landscape assessments are being undertaken by QLDC. ***ORC's involvement in the Environment Court process*** assisted in ensuring that provisions gave effect to/ had regard to the relevant landscape protection provisions of the operative and proposed regional policy statements. In addition, ORC's evidence in relation to the juxtaposition of landscape protection and natural hazard mitigation works led to the Natural Hazards variation.	- Policy 5.3.6 Tourism and outdoor recreation
Topic 2 subtopic 9: Lakes and Rivers	Mediation agreement and consent order signed regarding: • Chapter 6 Landscape This topic sets the strategic direction for managing the use, occupation of, and access to lakes and rivers within the district. ***ORC's involvement with the Environment Court mediation process*** assisted in ensuring that provisions gave effect to/ had regard to the relevant landscape and lake margin protection provisions of the operative and proposed regional policy statements.	Gives effect to/ has regard to the following RPS 2019 and pRPS 2019 objectives and policies: - Objective 3.1 - Objective 3.2 - Objective 5.4 - Policy 3.1.2 Beds of rivers, lakes, wetlands, and their margins - Policy 3.1.11 Natural features, landscapes, and seascapes - Policy 3.1.12 Environmental enhancement - Policy 3.2.4 Managing outstanding natural features, landscapes and seascapes - Policy 3.2.6 Managing highly valued natural features, landscapes and seascapes - Policy 5.3.6 Tourism and outdoor recreation
Topic 3: Urban Development	Mediation agreement and consent order signed regarding: • Chapter 4 Urban Development	Gives effect to/ has regard to the following RPS 2019 and pRPS 2019 objectives and policies: - Objective 1.2 - Objective 3.1

	This chapter elaborates on the strategic direction in Chapter 3 and set out the objectives and policies for managing the spatial location and layout of urban development within the District. ***ORC's involvement with the Environment Court mediation process*** assisted in ensuring that provisions gave effect to/ had regard to both the urban development and natural landscape provisions of the operative and proposed regional policy statements.	- Objective 3.2 - Objective 4.3 - Objective 4.5 - Objective 5.4 - Policy 1.1.1 Economic wellbeing - Policy 3.1.11 Natural features, landscapes, and seascapes - Policy 3.2.4 Managing outstanding natural features, landscapes and seascapes - Policy 3.2.6 Managing highly valued natural features, landscapes and seascapes - Policy 4.3.2 - Nationally and regionally significant infrastructure - Policy 4.3.3 - Functional needs of infrastructure that has national or regional significance - Policy 4.3.4 - Adverse effects of nationally and regionally significant infrastructure - Policy 4.3.5 - Protecting infrastructure with national or regional significance - Policy 4.3.6 - The National Grid - Policy 4.5.1 Providing for urban growth and development - Policy 4.5.2 Integrating infrastructure with land use
Topic 4: Indigenous vegetation and biodiversity	Mediation agreement signed regarding: • Chapter 33 Indigenous Vegetation and Biodiversity This chapter sets objective, policies and rules that provide for the protection of indigenous biodiversity. ***ORC's involvement with the Environment Court mediation process*** assisted in ensuring that provisions gave effect to/ had regard to the indigenous biodiversity provisions of the operative and proposed regional policy statements.	Gives effect to/ has regard to the following RPS 2019 and pRPS 2019 objectives and policies: - Objective 3.1 - Objective 3.2 - Policy 3.1.9 Ecosystems and indigenous biological diversity - Policy 3.1.13 Environmental enhancement - Policy 3.2.1 Identifying significant indigenous vegetation and habitats - Policy 3.2.2 Managing significant indigenous vegetation and habitats

Topic 5: Heritage	Mediation agreement and consent order signed regarding: • Chapter 26 Heritage This chapter sets objective, policies and rules that promote the sustainable management of the District's historic heritage feature. ***ORC's involvement with the Environment Court mediation process*** assisted in ensuring that provisions gave effect to/ had regard to the heritage provisions of the operative and proposed regional policy statements.	Gives effect to/ has regard to the following RPS 2019 and pRPS 2019 objectives and policies: - Objective 5.2 - Policy 5.2.1 Recognising historic heritage - Policy 5.2.2 Identifying historic heritage - Policy 5.2.3 Managing historic heritage
Topic 7: Subdivision and development	Mediation agreement and consent order signed regarding: • Chapter 27 Subdivision This chapter sets objective, policies and rules that manage subdivision within the District. ***ORC's involvement with the Environment Court mediation process*** assisted in ensuring that provisions gave effect to/ had regard to both infrastructure and natural hazard provisions of the operative and proposed regional policy statements.	Gives effect to/ has regard to the following RPS 2019 and pRPS 2019 objectives and policies: - Objective 4.1 - Objective 4.5 - Policy 4.1.4 Assessing activities for natural hazard risk - Policy 4.1.5 Natural hazard risk - Policy 4.5.1 Providing for urban growth and development - Policy 4.5.2 Integrating infrastructure with land use
Topic 8: Queenstown and Wanaka town centres	Mediation agreement and consent order signed regarding: • Chapter 12 Queenstown Town Centre This chapter sets objective, policies and rules that manage land use activities within the Queenstown Town Centre Zone.	Gives effect to/ has regard to the following RPS 2019 and pRPS 2019 objectives and policies: - Objective 4.5 - Objective 5.1 - Policy 4.5.1 Providing for urban growth and development - Policy 4.5.2 Integrating infrastructure with land use - Policy 4.5.3 Urban design

	ORC's involvement with the Environment Court mediation process assisted in ensuring the provisions gave effect to/ had regard to the urban development provisions of the operative and proposed regional policy statements.	- Policy 5.1.1 Public access
Topic 12: Natural hazards	Mediation agreement and consent order signed regarding: • Chapter 28 Natural Hazards This chapter provides an objective and policy framework to address natural hazards throughout the District. ***ORC's involvement with the Environment Court mediation process*** ensured that provisions gave effect to/ had regard to the natural hazard provisions of the operative and proposed regional policy statements.	Gives effect to/ has regard to the following RPS 2019 and pRPS 2019 objectives and policies: - Objective 4.1 - Policy 4.1.1 Identifying natural hazards - Policy 4.1.2 Natural hazard likelihood - Policy 4.1.3 Natural hazard consequence - Policy 4.1.4 Assessing activities for natural hazard risk - Policy 4.1.5 Natural hazard risk - Policy 4.1.6 Minimising increase in natural hazard risk - Policy 4.1.7 Reducing existing natural hazard risk - Policy 4.1.8 Precautionary approach to natural hazard risk - Policy 4.1.9 Protecting features and systems that provide hazard mitigation - Policy 4.1.10 Mitigating natural hazards - Policy 4.1.11 Hard protection structures - Policy 4.1.12 Lifeline utilities and facilities for essential or emergency services - Policy 4.1.13 Hazard mitigation measures, lifeline utilities, and essential and emergency services
Topic 17: Energy and utilities	Mediation agreement signed regarding: • Chapter 30 Energy and Utilities This chapter sets objective, policies and rules that manage the energy and utility development across the district.	Gives effect to/ has regard to the following RPS 2019 and pRPS 2019 objectives and policies: - Objective 3.1 - Objective 3.2 - Objective 4.3 - Objective 4.5 - Objective 5.4 - Policy 3.1.11 Natural features, landscapes, and seascapes

	ORC's involvement with the Environment Court mediation process assisted in ensuring the provisions gave effect to/ had regard to both the utilities and landscape protection provisions of the operative and proposed regional policy statements.	- Policy 3.2.4 Managing outstanding natural features, landscapes and seascapes - Policy 3.2.6 Managing highly valued natural features, landscapes and seascapes - Policy 4.3.2 - Nationally and regionally significant infrastructure - Policy 4.3.3 - Functional needs of infrastructure that has national or regional significance - Policy 4.3.4 - Adverse effects of nationally and regionally significant infrastructure - Policy 4.3.5 - Protecting infrastructure with national or regional significance - Policy 4.3.6 - The National Grid - Policy 4.5.1 Providing for urban growth and development - Policy 4.5.2 Integrating infrastructure with land use
Topic 18: Rural	Mediation agreement signed regarding: • Chapter 21 Rural This chapter sets objectives, policies and rules that manage the Rural zone. ***ORC's involvement in the Environment Court mediation process*** assisted in ensuring that provisions of the PDP balanced both the economic development direction and the landscape protection required by the provisions of the operative and proposed regional policy statements.	Gives effect to/ has regard to the following RPS 2019 and pRPS 2019 objectives and policies: - Objective 3.1 - Objective 3.2 - Objective 5.3 - Objective 5.4 - Policy 3.1.9 Ecosystems and indigenous biological diversity - Policy 3.1.13 Environmental enhancement - Policy 3.2.1 Identifying significant indigenous vegetation and habitats - Policy 3.2.2 Managing significant indigenous vegetation and habitats - Policy 3.2.4 Managing outstanding natural features, landscapes and seascapes - Policy 3.2.6 Managing highly valued natural features, landscapes and seascapes - Policy 5.3.1 Rural activities - Policy 5.4.1 Offensive or Objectionable discharges
Topic 19: Ski area subzones	Mediation agreement signed regarding: • Chapter 2 Definitions • Chapter 21 Rural	Gives effect to/ has regard to the following RPS 2019 and pRPS 2019 objectives and policies:

	• Chapter 27 Subdivision Amendments were made to these chapters to provide for ski area activities within the ski area subzone. There are some un-resolved appeal points relating to the extension of the ski area subzone boundary. ***ORC's involvement in the Environment Court mediation process*** assisted in ensuring that provisions of the PDP balanced both the economic development direction and the landscape protection required by the provisions of the operative and proposed regional policy statements. It also ensured that development did not undermine indigenous biodiversity.	Gives effect to/ has regard to the following RPS 2019 and pRPS 2019 objectives and policies: - Objective 3.1 - Objective 3.2 - Objective 5.4 - Policy 3.1.9 Ecosystems and indigenous biological diversity - Policy 3.1.13 Environmental enhancement - Policy 3.2.1 Identifying significant indigenous vegetation and habitats - Policy 3.2.2 Managing significant indigenous vegetation and habitats - Policy 3.2.4 Managing outstanding natural features, landscapes and seascapes - Policy 3.2.6 Managing highly valued natural features, landscapes and seascapes - Policy 5.3.6 Tourism and outdoor recreation
Topic 20: Rural Residential and Rural Lifestyle	Mediation agreement signed regarding: • Chapter 22 Rural Residential and Rural Lifestyle This chapter sets objectives, policies and rules that manage the Rural Residential and Rural Lifestyle zones. ***ORC's involvement in the Environment Court mediation process*** assisted in ensuring that provisions of the PDP balanced both the urban development direction and the landscape protection required by the provisions of the operative and proposed regional policy statements.	Gives effect to/ has regard to the following RPS 2019 and pRPS 2019 objectives and policies: - Objective 3.1 - Objective 3.2 - Objective 4.5 - Policy 3.2.4 Managing outstanding natural features, landscapes and seascapes - Policy 3.2.6 Managing highly valued natural features, landscapes and seascapes - Policy 4.5.1 Providing for urban growth and development - Policy 4.5.2 Integrating infrastructure with land use - Policy 4.5.3 Urban design
Topic 22: Jacks Point	Mediation agreement signed regarding: • Chapter 41 Jacks Point Zone	Gives effect to/ has regard to the following RPS 2019 and pRPS 2019 objectives and policies: - Objective 3.1

	This chapter sets objectives, policies and rules that manage the Jacks Point zone. ***ORC's involvement in the Environment Court mediation process*** assisted in ensuring that provisions of the PDP balanced both the urban development direction and the landscape protection required by the provisions of the operative and proposed regional policy statements.	- Objective 3.2 - Objective 4.5 - Policy 3.2.4 Managing outstanding natural features, landscapes and seascapes - Policy 4.5.1 Providing for urban growth and development - Policy 4.5.2 Integrating infrastructure with land use - Policy 4.5.3 Urban design
Topic 23: Rezoning appeals	There are several re-zoning appeals that remain un-resolved. ***ORC's involvement in the Environment Court mediation processes*** assists in ensuring that provisions of the PDP balance the urban development direction with the natural hazard and landscape protection required by the provisions of the operative and proposed regional policy statements.	Gives effect to/ has regard to the following RPS 2019 and pRPS 2019 objectives and policies: - Objective 3.1 - Objective 3.2 - Objective 4.5 - Policy 3.2.4 Managing outstanding natural features, landscapes and seascapes - Policy 4.5.1 Providing for urban growth and development - Policy 4.5.2 Integrating infrastructure with land use - Policy 4.5.3 Urban design
Topic 26: Earthworks	Mediation agreement signed regarding: • Chapter 25 Earthworks This chapter sets objectives, policies and rules that manage earthworks throughout the district. There is one un-resolved appeal point relating to the notification of earthwork applications. ***ORC's involvement with the Environment Court mediation process*** assisted in ensuring that provisions gave effect to/ had regard to the	Gives effect to/ has regard to the following RPS 2019 and pRPS 2019 objectives and policies: - Objective 3.1 - Objective 3.2 - Objective 5.3 - Objective 5.4 - Policy 3.1.9 Ecosystems and indigenous biological diversity - Policy 3.1.13 Environmental enhancement - Policy 3.2.1 Identifying significant indigenous vegetation and habitats - Policy 3.2.2 Managing significant indigenous vegetation and habitats - Policy 3.2.4 Managing outstanding natural features, landscapes and seascapes

	natural landscape provisions of the operative and proposed regional policy statements.	- Policy 3.2.6 Managing highly valued natural features, landscapes and seascapes - Policy 5.3.1 Rural activities - Policy 5.4.1 Offensive or Objectionable discharges
Topic 28: Transport	Mediation agreement signed regarding: • Chapter 29 Transport This chapter sets objectives, policies and rules that manage transport activity and infrastructure throughout the district. There are several unresolved appeal points relating to: High Traffic Generation Activities regime, public and commercial transport, parking dimensions, and matters of discretion. ***ORC's involvement with the Environment Court mediation process*** assisted in ensuring that provisions gave effect to/ had regard to both the urban development and transport provisions of the operative and proposed regional policy statements.	Gives effect to/ has regard to the following RPS 2019 and pRPS 2019 objectives and policies: - Objective 4.4 - Objective 4.5 - Policy 4.5.1 Providing for urban growth and development - Policy 4.5.2 Integrating infrastructure with land use - Policy 4.5.3 Urban design - Policy 4.4.6 Energy efficient transport
Topic 29: Visitor Accommodation	Mediation agreement signed agreeing to: • A range of amendments relating to the provision of visitor accommodation. These changes sought to better provide for visitor accommodation within the district. ***ORC's involvement with the Environment Court mediation process*** assisted in ensuring that provisions gave effect to/ had regard to the urban	Gives effect to/ has regard to the following RPS 2019 and pRPS 2019 objectives and policies: - Objective 1.2 - Objective 4.5 - Objective 5.3 - Objective 5.4 - Policy 1.1.1 Economic wellbeing - Policy 4.5.1 Providing for urban growth and development - Policy 5.3.3 Distribution of commercial activities - Policy 5.3.6 Tourism and outdoor recreation

	development provisions of the operative and proposed regional policy statements.	
Topics 30: Wakatipu Basin	Mediation agreement signed regarding: • Chapter 24 Wakatipu Basin This chapter sets objectives, policies and rules that manage the Wakatipu Basin Rural Amenity Zone (Rural Amenity Zone) and its sub-zone, the Wakatipu Basin Lifestyle Precinct (Precinct). There are several unresolved appeal points including: objectives, policies relating to minimum subdivision sizes, and water quality within Lake Hayes. ***ORC's involvement with the Environment Court mediation process*** assisted in ensuring that provisions gave effect to/ had regard to the urban development, water quality, and natural landscape provisions of the operative and proposed regional policy statements.	Gives effect to/ has regard to the following RPS 2019 and pRPS 2019 objectives and policies: - Objective 3.1 - Objective 3.2 - Objective 5.3 - Objective 5.4 - Policy 3.1.1 Freshwater - Policy 3.1.2 Beds of rivers, lakes, wetlands, and their margins - Policy 3.1.3 Water allocation and use - Policy 3.1.9 Ecosystems and indigenous biological diversity - Policy 3.1.8 Soil erosion - Policy 3.1.13 Environmental enhancement - Policy 3.2.1 Identifying significant indigenous vegetation and habitats - Policy 3.2.2 Managing significant indigenous vegetation and habitats - Policy 3.2.4 Managing outstanding natural features, landscapes and seascapes - Policy 3.2.6 Managing highly valued natural features, landscapes and seascapes - Policy 5.3.1 Rural activities
Topic 32: Open Space	Mediation agreement signed regarding: • Chapter 38 Open Space and Recreational Zones This chapter set objective, policies and rules that manage the Open Space and Recreational Zones. ***ORC's involvement with the Environment Court mediation process*** assisted in ensuring that provisions gave effect to/ had regard to the urban development, natural hazard, and natural landscape provisions of the operative and proposed regional policy statements.	Gives effect to/ has regard to the following RPS 2019 and pRPS 2019 objectives and policies: - Objective 4.1 - Objective 4.5 - Policy 4.1.1 Identifying natural hazards - Policy 4.1.2 Natural hazard likelihood - Policy 4.1.3 Natural hazard consequence - Policy 4.1.4 Assessing activities for natural hazard risk - Policy 4.1.5 Natural hazard risk - Policy 4.1.8 Precautionary approach to natural hazard risk - Policy 4.1.9 Protecting features and systems that provide hazard mitigation

		- Policy 4.1.10 Mitigating natural hazards - Policy 4.5.1 Providing for urban growth and development - Policy 4.5.2 Integrating infrastructure with land use

8.1. Recommendations of the 12 Nov 2020 Strategy and Planning Committee

Recommendation
That the resolutions of the Strategy and Planning Committee made at the 12 November 2020 meeting be adopted by Council.

8.1 ORC's Science Approach for the Land and Water Regional Plan

Resolution
That the Committee:
1) ***Receives*** *this report.*
2) ***Notes*** *the* proposed science approach for the LWRP outlined in this paper.
Moved: Cr Hobbs
Seconded: Cr Noone
CARRIED

8.2 Overall Implications of Essential Freshwater Reforms

Resolution
That the Committee:
1) ***Receives*** *this report.*
2) ***Notes*** *the additional resources required to start implementing the NPS FM.*
3) ***Notes*** *the additional expenditure required for the 2020/21 financial year.*
4) ***Notes*** *that any additional resource implications will be addressed as part of the Long Term Plan.*
Moved: Cr Calvert
Seconded: Cr Hobbs
CARRIED

8.3 Otago Greenhouse Gas Emission Inventory by District

Resolution
That the Committee:
1) ***Receives*** *this report.*
2) ***Notes*** *that a draft report is expected to be completed by March 2021 and the final report is expected to be completed by April 2021.*
Moved: Cr Calvert
Seconded: Cr Deaker
CARRIED

8.4 Avenues for Investment in COVID-19 Recovery

Resolution
That the Committee:
1) ***Receives*** *this report.*
2) ***Notes*** *the potential for Council to need to make decisions on proposals for funding related to Kaimahi for Nature and other Central Government grants for COVID-19 recovery.*
3) ***Approves*** *the proposed decision tree to evaluate funding applications or proposals made to or by ORC against Council's Strategic Directions.*

4) ***Approves*** *the COVID-19/Jobs for Nature Working Group of Council as the evaluator of proposals for funding received by ORC*
5) ***Invites*** *the COVID-19/Jobs for Nature Working Group to devise a funding process and funding envelope for consideration by Council in late 2020, ensuring a financial lens is considered by inviting Chairs of Committees and GM Corporate Services to participate in the meeting with the Working Group.*
6) ***Requests*** *that the Working Group take note of seasonal labour shortages in Central Otago*.

Moved: Cr Hobbs
Seconded: Cr Robertson
CARRIED

8.2. Recommendations of the 26 August 2020 Finance Committee

Recommendation
That the resolutions of the Finance Committee made at the 26 August 2020 meeting be adopted by Council.

8.1 LTP Process/Timetable

Resolution
That the Finance Committee:

1) ***Endorses*** *the 2021-31 Long Term Plan milestone process provided as an attachment to this report, mindful of the need that further workshops or meetings may be required*

2) ***Notes*** *the role of the Otago Regional Council elected members in the 2021-31 Long Term Plan process and the associated process risk.*

Moved: Cr Malcolm
Seconded: Cr Noone
CARRIED

8.2 Port Otago Statement of Corporate Intent

Resolution
That the Finance Committee:

1) ***Receives*** *this report and the attached Draft Statement of Corporate Intent for Port Otago Limited.*
2) ***Endorses*** *the Statement of Corporate Intent.*
3) ***Notes*** *any feedback will be provided through the Port Liaison Committee to the Port Otago Board on an ongoing basis.*

Moved: Cr Deaker
Seconded: Cr Malcolm
CARRIED

8.3 Port Otago Limited Constitution

Resolution
That the Finance Committee:

1) ***Receives*** *this report.*
2) ***Notes*** *that ORC wishes to keep the intent of the existing domicility clause.*

Moved: Cr Wilson
Seconded: Cr Laws
CARRIED

8.4 Annual Return of Inactive Subsidiaries 2020

Resolution

1) ***That*** *it shall not be necessary for Regional Services Limited to hold an Annual General Meeting under section 120 of the Companies Act 1993.*
2) ***That*** *no auditors be appointed for Regional Services Limited under section 196 (2) of the Companies Act 1993.*
3) ***That*** *it shall not be necessary for Regional Pest Services Limited to hold an Annual General Meeting under section 120 of the Companies Act 1993.*
4) ***That*** *no auditors be appointed for Regional Pest Services Limited under section 196 (2) of the Companies Act 1993.*
5) ***That*** *it shall not be necessary for Regional Monitoring Services Limited to hold an Annual General Meeting under section 120 of the Companies Act 1993.*
6) ***That*** *no auditors be appointed for Regional Monitoring Services Limited under section 196 (2) of the Companies Act 1993.*

Moved: Cr Noone
Seconded: Cr Malcolm
CARRIED

9.1 Activity Review 2019-20, 1 July 2019 to 30 June 2020 (Q4/Annual Report)

Resolution
That the Finance Committee:

1) ***Receives*** *the attached draft Activity Performance section of the Annual Report for the period 1 July 2019 to 30 June 2020.*
2) ***Acknowledges*** *that the measures could be improved, and that staff and Council will work towards this for the Long Term Plan.*

Moved: Cr Kelliher
Seconded: Cr Wilson
CARRIED

9.2 Finance Report

Resolution
That the Finance Committee:

1) ***Receives*** *this paper and the attached Finance Report June 2020.*
2) ***Notes*** *the treatment of the impaired asset adjustment included in the preliminary financial result.*
3) ***Notes*** *the use of the emergency response reserve to fund repair costs incurred in the 30 June 2020 year and also notes further use of this reserve to fund remaining repair costs will be considered once those costs are completed in the 2021 year.*
4) ***Notes*** *replenishment of the emergency response reserve will be considered as part of the LTP 2021-31 process.*

Moved: Cr Wilson
Seconded: Cr Malcolm
CARRIED

9.1. Chairperson's Report

Prepared for: Council

Activity: Governance Report

Author: Cr Andrew Noone, Chairperson

Date: 16 November 2020

MANA WHAKAHONO E ROHE

[1] Iwi have advised that the development of a Mana Whakahono e Rohe with Dunedin City Council is about to start. Once that process is complete, a Mana Whakahono e Rohe will be developed between mana whenua and Otago Regional Council.

MEETINGS

[2] Cr Wilson, Transport Manager Garry Moloney, and I attended a meeting at the Clutha District Council to discuss transportation across the Clutha District. The main focus was on how people who did not have access to a vehicle or are unable to drive could be catered for when essential needs were required.

[3] The CEO and I met with the Environment Southland CEO and Chair in Balclutha to discuss opportunities for co-operation, NES/Intensive winter grazing, Three Waters and Iwi engagement.

[4] I met with Don Robertson, Chair of the Guardians of Lake Wanaka (he is also a Trustee of WAI Wanaka), to discuss Lake Wanaka water quality and greater monitoring capability.

[5] I met with Grey Power Otago President Jo Miller to discuss Public Transport.

[6] With Regulatory staff and Councillors, we met with Federated Farmers in Clinton to discuss the new freshwater regulations.

FUNCTIONS

[7] Attended the Enviroschools – Water of Life Hui at Waihola with Cr Hope and Cr Wilson.

[8] Attended South Dunedin Hui with Cr Calvert and staff.

[9] Attended a Reserve Bank function in Dunedin.

LETTERS

[10] Sent a letter to the Department Internal Affairs outlining the Otago Regional Council's forward plan for development opportunities and key decisions through to June 2021.

[11] Sent a letter to QLDC confirming that the two elected member representatives to join the Grow Well Whaiora Partnership Governance Group are Cr Forbes and myself.

[12] Congratulated Mike Theelen (via email) on his reappointment as the CEO of QLDC.

TRAINING

[13] In December I will attend media training along with some staff.

[14] In the New Year the Council will have a Chairing Practice Session with an independent facilitator, with a focus on preparation, protocols, people and practice.

RECOMMENDATION

That the Council:

1) ***Receives*** *this report.*

ATTACHMENTS

Nil

9.2. Chief Executive's Report

Prepared for: Council

Activity: Governance Report

Author: Sarah Gardner, Chief Executive

Date: 17 November 2020

KEY MEETINGS ATTENDED

- 2 November – Meeting with Chief Executive Taumata Arowai.
- 2 November – Three Waters Steering Group meeting in Wellington.
- 4 November – Regional and Unitary Chief Executive Officers' (RCEO) Group meeting (by Zoom).
- 4 November – Otago Mayoral Forum Three Waters Meeting (by Zoom).
- 5 November – Regular catch-up meeting with Kevin Winders, Chief Executive of Port Otago Ltd.
- 5 November – CE Environment and Economic Forum (by Zoom) of Central Government and Regional Sector CEs.
- 5 November – Meeting with Chair Noone, Cr Calvert, Cr Forbes, Cr Wilson re public transport
- 6 November – ORC Communications and Stakeholders Engagement Strategy interview.
- 10 November – South Island Councils Closer Working Relationship meeting (via Zoom).
- 12 November – LTP Financials Workshop.
- 12 November – Met with Warren Ulusele, Relationship Director for Otago from Department of Internal Affairs.
- 12 November – Strategy and Planning Committee.
- 13 November – Met with Prof Peter Skelton, Chief Freshwater Commissioner, to discuss the Freshwater Planning Process.
- 13 November – Chief Executives Coordinating Executive Group meeting (CEG), reverted to discussion as no quorum present.
- 17 November – Meeting with Chair Noone, Chair of Environment Southland and CE of Environment Southland, Balclutha.
- 19 November – Reserve Bank Board meeting.
- 19 November – Freshwater Implementation with RCEOs – fortnightly catch-up (by Zoom).

DISCUSSION

Three Waters

[1] An Otago Southland Three Waters Office has been established, through the Otago Mayoral Forum and Southland Mayoral Forum, to review and consider both the current and potential future service delivery options for Otago and Southland in the context of the Government's Three Waters Reform Programme.

[2] Each of the Otago and Southland Territorial Authorities (TAs) have committed to the Three Waters Memorandum of Understanding with DIA. Principally the Three Waters Office is designed to assist the Otago and Southland TAs to coordinate their response to the MOU objectives and assess the implications of the proposed reform.

[3] The following work streams are proposed at this stage in order to assist the TA decision-making ahead of the proposed legislation due with Cabinet in May 2021. It is recognised that work streams 1-3 are the priority and they are due for completion by 29 January 2021 to coincide with the timeframe for responding to the Request for Information from TAs from DIA.

Work Stream One: Network and Service Delivery Analysis

[4] This work will develop an understanding of the Three Waters networks and services within the Otago and Southland regions.

Work Stream Two: Financial Assessment

[5] This work will focus on the financial implications for each scheme and the associated assets

Work Stream Three: People and Capability Assessment

[6] This work will document the people and capability supporting Three Waters service delivery at each participating TA.

Work Stream Four: Options Development and Evaluation

[7] This work involves the preliminary identification of options for the delivery of Three Waters services across the Otago and Southland regions.

Work Stream Five: Options Impact Assessment for each Member Participant

[8] Work stream five involves a short-form impact assessment of the shortlist options as they relate to each of the TA member participants.

[9] Funding for this work is a combination of Mayoral Forum budget, the grant funding received as a result of the application of both Mayoral Forums to DIA for this purpose, and delivery plan funding received by TAs as a result of signing the MoU for Three Waters with Government.

South Island Regional Sector Collaboration

[10] The current reform agenda, implications of implementing recent new policy such as the National Policy Statement and National Environmental Standards for Freshwater

Management and the challenges of managing capacity in the sector are all reasons for greater collaboration with our South Island neighbours and fellow regional councils.

[11] Recently, I met with Chief Executives from Environment Canterbury, Environment Southland to discuss possible skill sharing and shared services with a view to developing areas of commonality that we can work on together. This initiative has the potential to minimise the cost and capacity implications of the workload we have upon us. The new Chief Executive at West Coast Regional Council is also keen to participate.

[12] These conversations have been supported by recent visits to Otago from the Chair, Deputy Chair and Chief Executive of Environment Canterbury, and the Chair and Chief Executive of Environment Southland to meet with Chair Noone and myself.

[13] To formalise arrangements, a draft Terms of Reference is being prepared for the first Governance meeting of the Chairs and Deputy Chairs or delegates of each Council that should happen sometime before Christmas. In the meantime, a group of Executives from each Council is meeting to discuss possible collaboration issues or work programmes and will report back to the Chief Executives.

Relationship Meeting, Department of Internal Affairs

[14] Warren Ulusele of the Department is our Otago Relationship Director from the Local Government division at Internal Affairs. From time to time, he visits the Chief Executives in the region, and has in the past also attended the Mayoral Forum.

[15] This meeting was also attended by Chair Noone. Warren was accompanied by two colleagues, both with responsibilities for local government related reform. We discussed the Randerson report and the RMA reform programme, Three Waters and the extension work being undertaken through LGNZ and SOLGM to look at the future for local government work.

RECOMMENDATION

That the Council:

1) ***Receives*** *this report.*

ATTACHMENTS

Nil

Cr Calvert Report Back

Bus Services
Several councillors met with the CE and GM Operations about bus services in Dunedin and Queenstown.
There is significant progress being made around reporting to councillors on bus user feedback, provision of non-commercial parts of bus contracts and information which Council will need to decide on the way forward after our trial around pricing.

Carbon Footprint Work
I have recently had contact with Beef and Lamb NZ about the research they have commissioned on carbon for their members' farms. I found the info really interesting.

They would be happy to come and give us a presentation of the findings and discuss where the information will be being used.

We have decided it is proper of us to take an interest in carbon footprints of ourselves and our region, and I think we should welcome any such sharing. I would like to know if others would like to hear what they have to say as well.

Councillor Forbes Report Back

Enviro Schools:

Let's go Travelling Hui (years 4-6) October 29. This was an inspiring event, despite the difficulty in accessing it by foot. Held at the Settler's museum, several roads had to be crossed including two major highways that were not navigable by the age group attending the event.

However once there, the hui was wonderful with kids engaged, happy to talk and comfortable in the enviroschool hui space. It was wonderful to see many people from different agencies turning up including our own councillors and staff.

As I stood in the rain waiting for the lights to stop the traffic so I could cross, I reflected (yet again) how it important it is to design a transport system that works for everyone, not just those who drive.

Transport: South Island Land Transport Committee Chairs meeting (zoom, October 30) with Councillor Wilson. The group was established in 2016 to create one voice from the South Island to Central Government while recognising regional differences. It wants to ensure the needs and aspirations of South Island communities are recognised and understood by Central Government and advocates with one voice on shared priority areas:

1. Advocacy for transportation in the South Island, including tracking how Central Government investment including the National Land Transport Fund (NLTF), Provincial Growth Fund (PGF) etc. is being allocated across the country
2. Resilience of the transport network
3. Freight journeys across the South Island
4. Tourism journey improvements across the South Island
5. An enabling funding approach for innovative multi-modal (road, public transport, walking, cycling, rail, air and sea) solutions
6. Explore opportunities for inter-regional public transport

Our Otago report discussed a timeline for the Regional Public Transport Plan as well as reports on bus patronage (Dunedin up on pre covid levels, Queenstown a long way down (37%).

Interesting to note are the Queenstown traffic counts, which while well down on last year, sitting between 2016/2018 levels, still exceed road capacity on SH6 and 6a at peak times.

Bus meetings: Cr Calvert has been in discussion with staff and councillors about improving customer experience on buses – this work is ongoing as we look for better ways to follow up on complaints and resolve issues.

Bus patronage update - Up in Dunedin (on pre Covid levels), still down by 37% in Queenstown.

Queenstown SH6A traffic counts – well down on 2019 – sitting between 2016 and 2018 levels but up to 2019 levels at peak times so still exceeding road capacity at peak times.

Fresh Water: Attended Clutha Dunstan fresh water vision meetings at both Cromwell and Clyde on November 3. Good meetings both with about 16 people at Cromwell and 25 at Clyde. There is a general sense of concern about how the new water rules will roll out and what effect they'll have, but there is also a sense that this work needs to be done. There are many different views about who and what is to blame for degradation, or even whether or not degradation is still occurring in the rural sector (most agree that urban sectors need to literally clean up acts), and whether or not enough is being done and by whom to improve water quality and quantity. There is also a lot of concern about water access for primary industry requirements and queries about the potential for water storage.

Friends of Lake Hayes AGM November 15. This was a lively meeting attended by about 50 people. The Friends acknowledged the council for the work undertaken so far but is keen to understand more about how and when the various projects underway by various organisations will come together. Restoration plans are contained in the Vision Lake Hayes project driven by FOLH and funded by community and benefactors. It's focused on delivering the 1995 Lake Hayes Management objectives and includes organisations such as The Nature Conservancy and Mana Tahuna. Steps include major investment in the Mill Creek Catchment (this is a community project driven by Mana Tahuna), the ORC led outlet culvert upgrade and the ORC led Arrow augmentation project (highlighted in 1995 LHMS and recent Schallenberg/NIWA reports). All of this needs ORC support. Key are the QLDC District Plan and ORC Regional Policy Statement. QLDC has included a policy within the new Proposed District Plan (clause 24.2.4.2) which is focused on improving water quality in Lake Hayes and its catchment. This has huge community support but FOLH is disappointed at push back from some developers – and it is now subject to Environment Court appeal. FOLH would like to see encompassing support for the type of work it is doing, and the QLDC District Plan, within the ORC Regional Policy Statement.

RESOLUTION TO EXCLUDE THE PUBLIC

That the Council excludes the public from the following part of the proceedings of this meeting (pursuant to the provisions of the Local Government Official Information and Meetings Act 1987) namely:

General subject of each matter to be considered	Reason for passing this resolution in relation to each matter	Ground(s) under section 48(1) for the passing of this resolution
1.1 Confirmation of minutes of the 28 October 2020 Council Meeting	To protect the privacy of natural persons, including that of deceased natural persons – Section 7(2)(a) To maintain the effective conduct of public affairs through—the protection of such members, officers, employees, and persons from improper pressure or harassment – Section 7(2)(f)(ii) To enable any local authority holding the information to carry out, without prejudice or disadvantage, commercial activities – Section 7(2)(h) To enable any local authority holding information to carry on, without prejudice or disadvantage, negotiations (including commercial and industrial negotiations) - Section 7(2)(i)	
2.1 Amendments to Delegations Manual	To maintain legal professional privilege – Section 7(2)(g)	Section 48(1)(a): that the public conduct of the whole or the relevant part of the proceedings of the meeting would be likely to result in the disclosure of information for which good reason for withholding would exist.
2.2 Draft Regional Policy Statement	To maintain the effective conduct of public affairs through—the free and frank expression of opinions by or between or to members or officers or employees of any local authority, or any persons to whom section 2(5) applies, in the course of their duty – Section 7(2)(f)(i) To prevent the disclosure or use of official information for improper gain or improper advantage – Section 7(2)(j)	Section 48(1)(a): that the public conduct of the whole or the relevant part of the proceedings of the meeting would be likely to result in the disclosure of information for which good reason for withholding would exist. Section 48(1)(d): that the exclusion of the public from the whole or the relevant part of the proceedings of

		the meeting is necessary to enable the local authority to deliberate in private on its decision or recommendation in any proceedings to which this paragraph applies.

This resolution is made in reliance on section 48(1)(a) of the Local Government Official Information and Meetings Act 1987 and the particular interest or interests protected by section 6 or section 7 of that Act or section 6 or section 7 or section 9 of the Official Information Act 1982, as the case may require, which would be prejudiced by the holding of the whole or the relevant part of the proceedings of the meeting in public are as shown above.